



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 135119

TO: Jeffrey Fredman
Location: REM-2C89-2C18
Art Unit: 1637
Tuesday, October 26, 2004

Case Serial Number: 09/829467

From: Peggy Ruppel
Location: Biotech-Chem Library
REMSSEN 1B65
Phone: 571-272-2557

Peggy.Ruppel@uspto.gov

Search Notes

I appreciate your patience in waiting for the results of this challenging search. I have included a set of results for "labeled oligonucleotides" that at least partly address Claim 1. This is the set that I mentioned to you during our telephone conversation. The structures of Claim 7 are each presented separately, for your convenience.

I've saved copies of the structures and the results, in case you would like to pursue the claims further.

Please let me know if you have any questions about the search strategy or the results.

Thank you for using STIC services.

=> b hcap1 s

FILE 'HCAP1.S' ENTERED AT 13:42:55 ON 21 OCT 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVER 1907 - 26 Oct 2004 VOL 141 ISS 18

FILE LAST UPDATED: 25 Oct 2004 (20041015/ED)

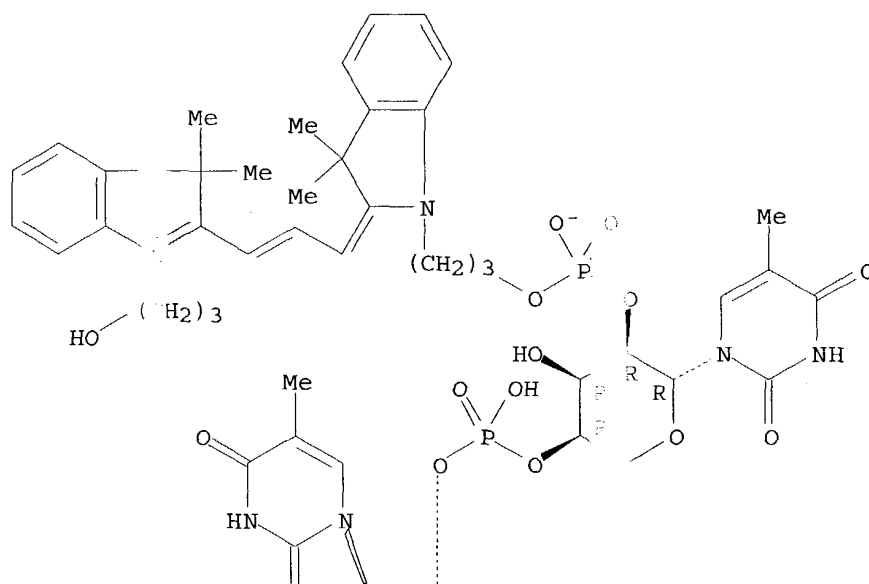
This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAP1.S' FILE

=> => => d que 168

L50 STR

PAGE 1-A



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VAR G2=16/ 6/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

Searched by P. Ruppel

BEST AVAILABLE COPY

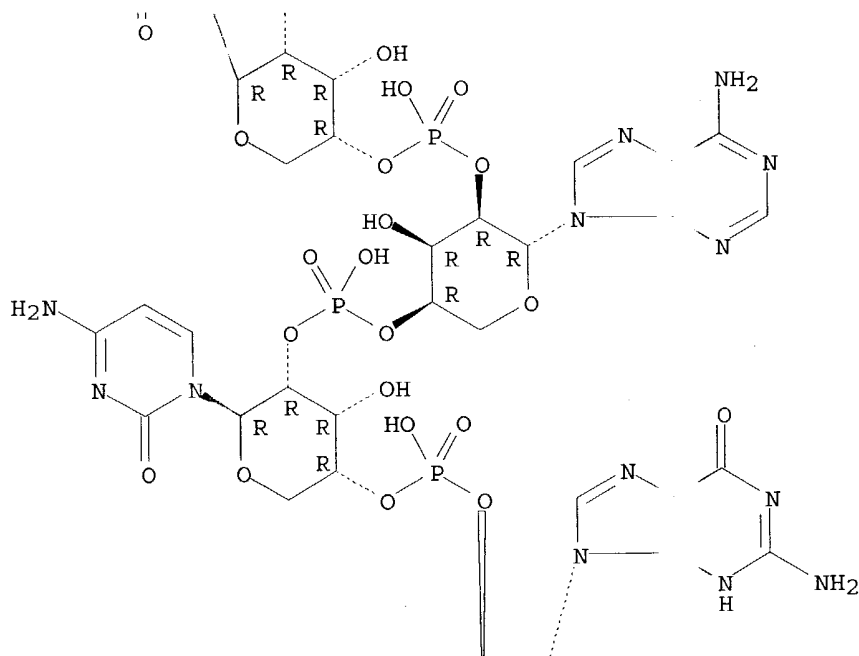
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 DEFAULT ECLEVEL IS LIMITED
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STEREO ATTRIBUTES: NONE
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 L52 STR

PAGE 2-A

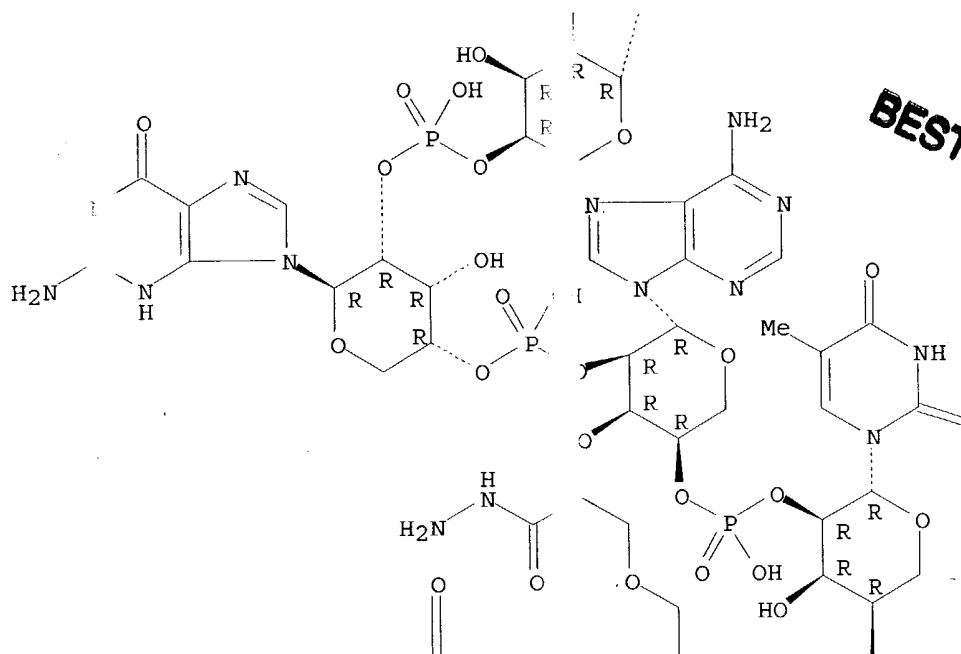


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 VAR G2=16/36/30
 VAR G3=O/S
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 DEFAULT ECLEVEL IS LIMITED
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 NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE
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 L54 (9042)SEA FILE:REGISTRY ABB=ON PLU=ON L53 AND 1/NC
 L55 (9906)SEA FILE:REGISTRY ABB=ON PLU=ON L51 OR L54
 L56 STR

PAGE 3-A



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DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L57 STR

PAGE 3-B

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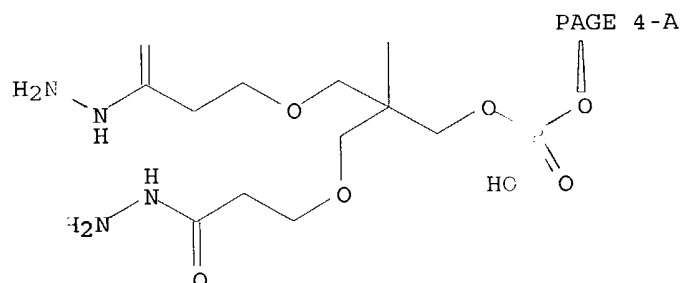
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DEFAULT ELEVEL IS LIMITED

Searched by P. Ruppel

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L58 STR

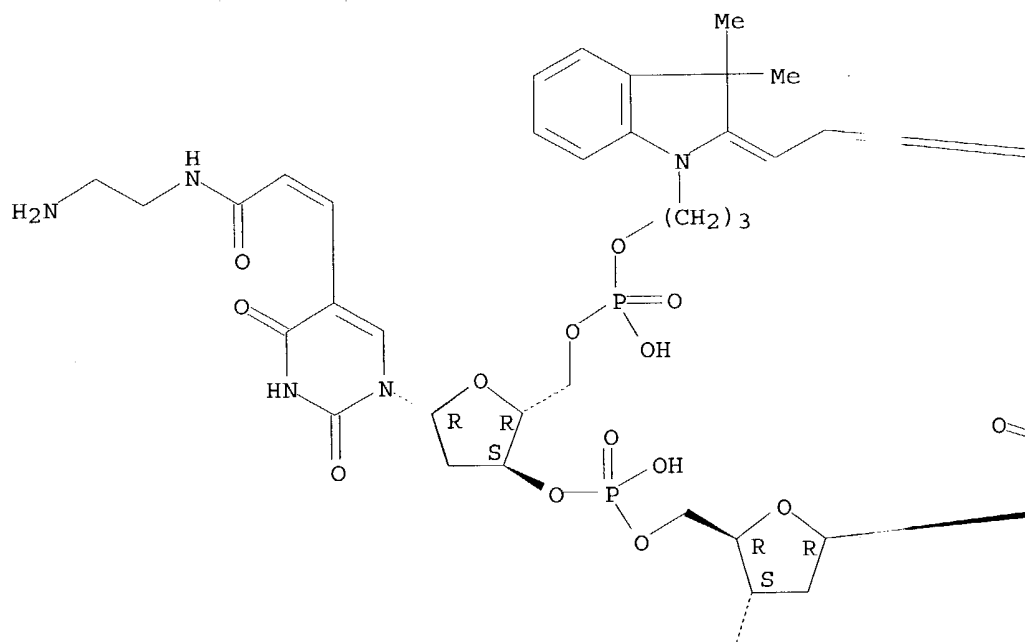


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L59 STR

PAGE 1-A



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

Searched by P. Ruppel

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NUCLESIS IS 9

STEREO ATTRIBUTES: NONE

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L61 (76 59)SEA FILE=REGISTRY SSS FUL L57
L62 (54 76)SEA FILE=REGISTRY SSS FUL L58
L63 (124 11)SEA FILE=REGISTRY SSS FUL L59
L64 (284 91)SEA FILE=REGISTRY ABB=ON PLU=ON L60 OR L61 OR L62 OR L63
L65 (93)SEA FILE=REGISTRY ABB=ON PLU=ON L55 AND L64
L66 (59)SEA FILE=HCAPLUS ABB=ON PLU=ON L65
L67 27 SEA FILE=HCAPLUS ABB=ON PLU=ON L66 AND P/DT
L68 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND (PRY<=2000 OR
PY<=2000 OR AY<=2000)

=>

=> d ibib ab hitstr l68 1-13

L68 ANSWER OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:372934 HCAPLUS
DOCUMENT NUMBER: 140:391441
TITLE: Preparation of dendrimeric DNA macromolecules having
hydrazide attachment moieties and reagents for their
production
INVENTOR(S): Raddatz, Stefan; Muller-Ibeler, Jochen; Schweitzer,
Markus; Brucher, Christoph; Windhab, Norbert; Havens,
John R.; Onofrey, Thomas J.; Greef, Charles H.; Wang,
Daguang
PATENT ASSIGNEE(S): Germany
SOURCE: U.S. Pat. Appl. Publ., 78 pp.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004 37807	A1	20040506	US 2003-344092	20030815 <--
WO 2001 61689	A1	20010719	WO 2000-US22205	20000811 <--
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RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 2002 14558	A2	20020221	WO 2001-US41663	20010810 <--
WO 2002 14558	A3	20020502		
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PRIORITY APP. INFO.:			WO 2000-US22205	W 20000811 <--
			WO 2001-US41663	W 20010810
			US 2000-175550P	P 20000111 <--

OTHER SOURCE(S): MAR AT 140:391441

AB This invention relates to attachment chemistries for binding macromols. to a substrate surface or to other conjugation targets. More particularly, this invention relates to attachment chemistries involving branched or linear structures having one or more hydrazide attachment moieties for binding the macromols. to a substrate surface, or for other conjugation reactions. Novel modifying reagents are provided for the introduction of protected hydrazide attachment moieties or precursor forms of such hydrazides to the macromol., either as a single hydrazide or as multiple hydrazides.

IT 681447-82-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dendrimeric DNA macromols. having hydrazide attachment moieties and reagents for their production)

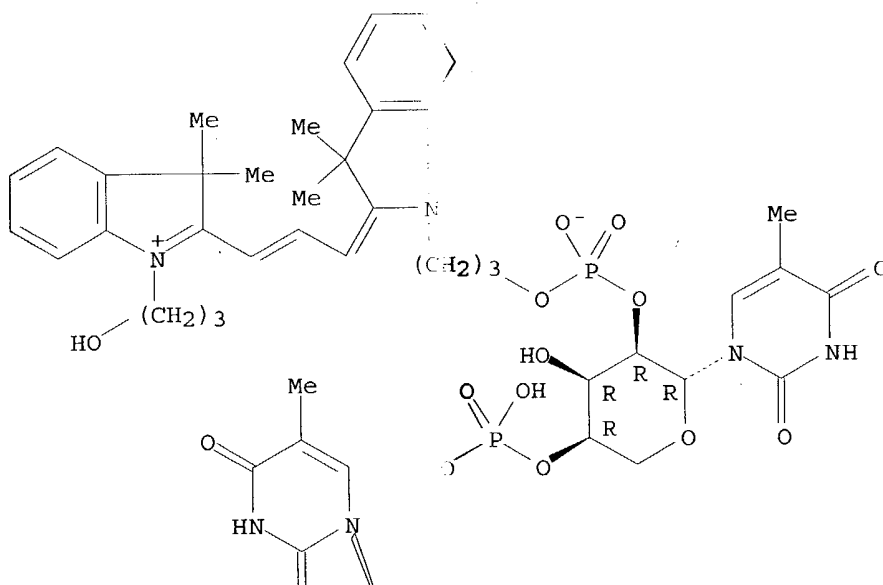
RN 681447-82-5 HCAPLUS

CN β -D-Ribopyrano-2'-uridylic acid, 4'-O-[[3-(3-hydrazino-3-oxopropoxy)-2,2-bis[(3-hydrazino-3-oxopropoxy)methyl]propoxy]hydroxyphosphinyl]-5-methyl- β -D-ribofuranouridylyl-(2'→4')- β -D-ribofuranoadenylyl-(2'→4')- β -D-ribofuranoguanilyl-(2'→4')- β -D-ribofuranocytidylyl-(2'→4')- β -D-ribofuranoadenylyl-(2'→4')-5-methyl- β -D-ribofuranouridylyl-(2'→4')-5-methyl-, 2'-[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

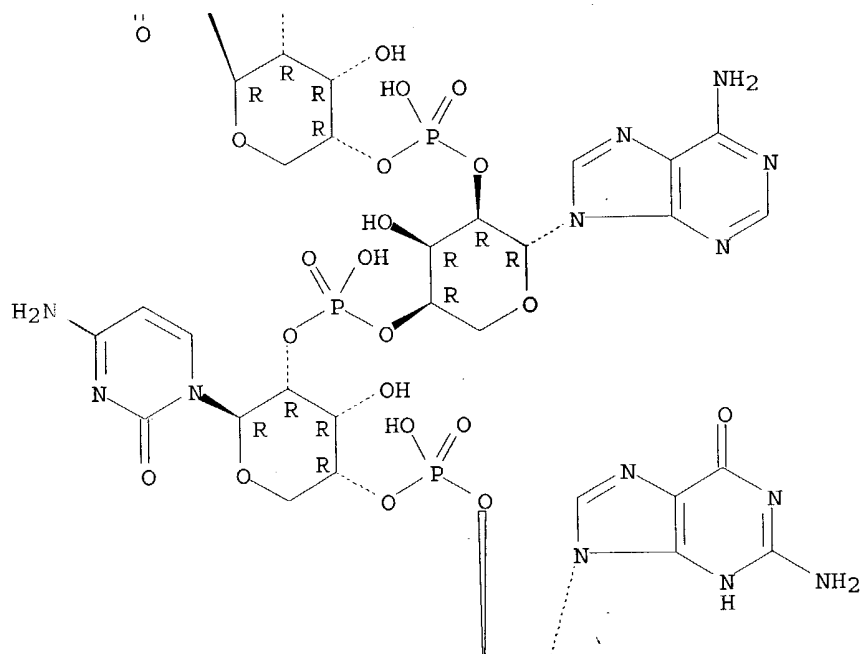
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PAGE 1-A

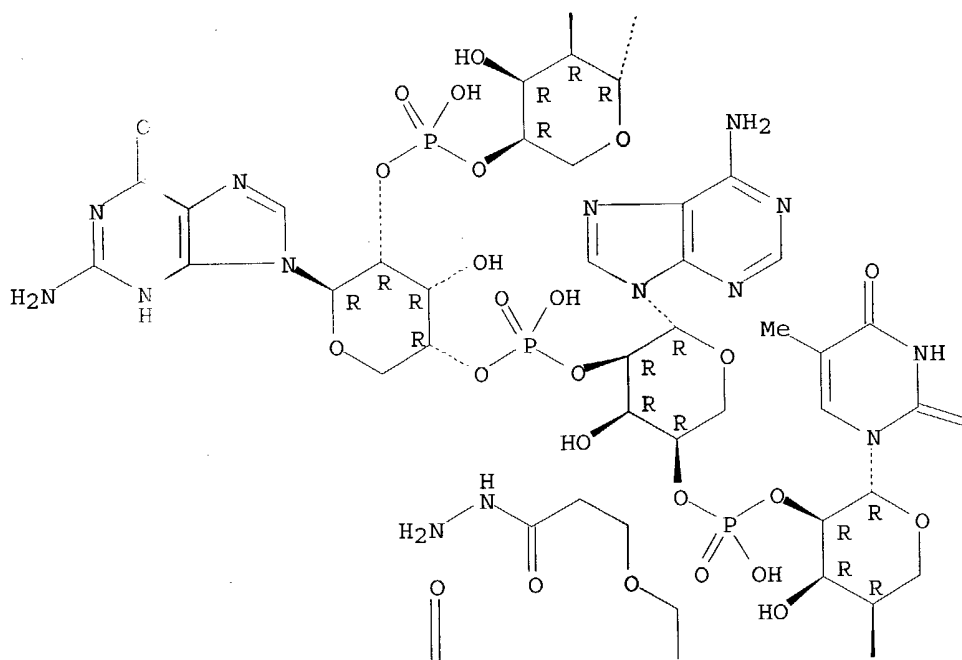


Searched by P. Ruppel

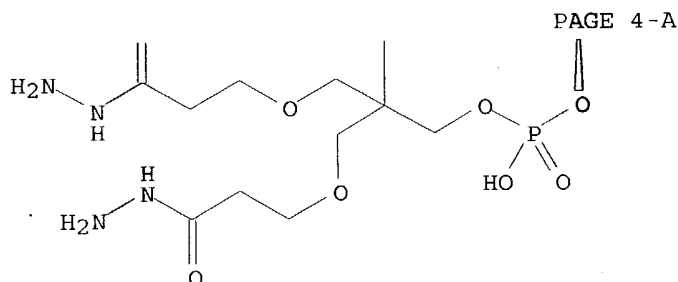
PAGE 2-A



PAGE 3-A



PAGE 3-B



L68 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:696696 HCAPLUS

DOCUMENT NUMBER: 137:227603

TITLE: Charge tags and the separation of nucleic acid molecules

INVENTOR(S): Lyamichev, Victor; Skrzpczynski, Zbigniew; Allawi, Hatim T.; Wayland, Sarah R.; Takova, Tsetska; Neri, Bruce P.

PATENT ASSIGNEE(S): Third Wave Technologies, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 120 pp., Cont.-in-part of U. S. Ser. No. 333,145.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 21

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002128465	A1	20020912	US 2001-777430	20010206 <--
US 6780982	B2	20040824		
US 6001567	A	19991214	US 1996-682853	19960712 <--
US 6706471	B1	20040316	US 1999-333145	19990614 <--
WO 2002063030	A2	20020815	WO 2002-US3423	20020206
WO 2002063030	A3	20031030		

Searched by P. Ruppel

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1385996 A2 20040204 EP 2002-724912 20020206

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 1996-682853 A2 19960712 <--
US 1999-333145 A2 19990614 <--
US 1996-599491 A2 19960124 <--
US 2001-777430 A 20010206
WO 2002-US3423 W 20020206

AB The present invention provides charge tags for attachment to materials including solid supports and nucleic acids, wherein the charge tags increase or decrease the net charge of the material. Thus, when an oligonucleotide modified with a charge tag is reduced in size (cleaved) or increased in size (elongated), the resulting product bears a net charge or a charge to mass ratio different from the original oligonucleotide thereby permitting separation of the original and product oligonucleotides on the basis of charge. The present invention therefore further provides methods for separating and characterizing mols. based on the charge differentials between modified and unmodified materials, e.g., by capillary electrophoresis. Thus, MCP1 and ubiquitin transcripts were simultaneously detected in an in vitro assay using the Invader technol. and probes charge tagged with one of two phosphoramidates, i.e., dG-P-Cy3 or dC-P-Cy3 in which P = -O-P(:O)(NHCH₂CH₂NMe₂)O-.

IT 446017-73-8D, oligonucleotide conjugates 446017-74-9D, oligonucleotide conjugates 446017-75-0D, oligonucleotide conjugates 446017-76-1D, oligonucleotide conjugates
RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
(charge tags and separation of nucleic acid mols.)

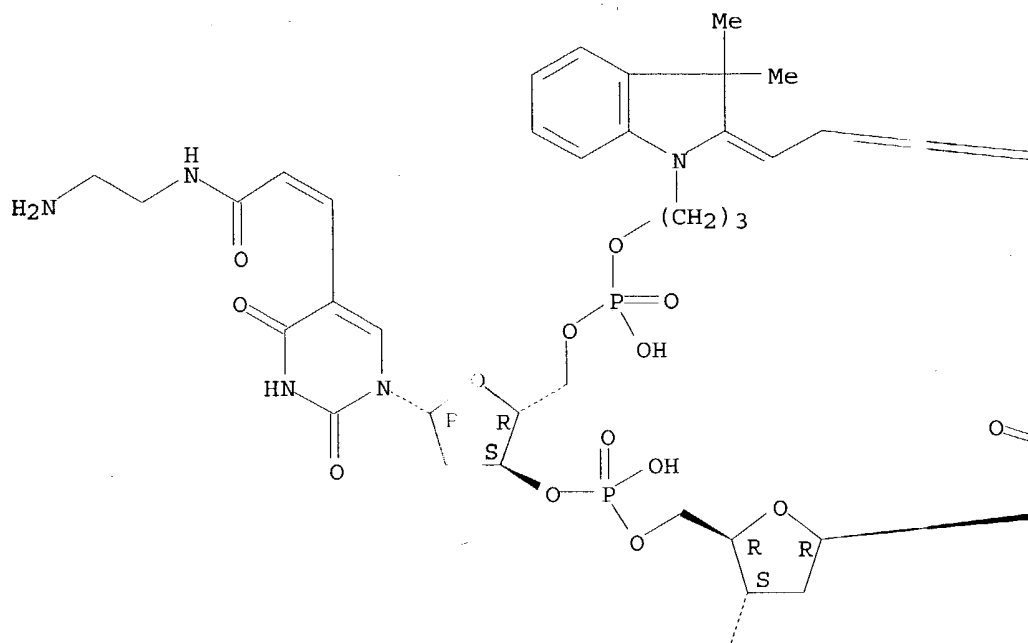
RN 446017-73-8 HCAPLUS

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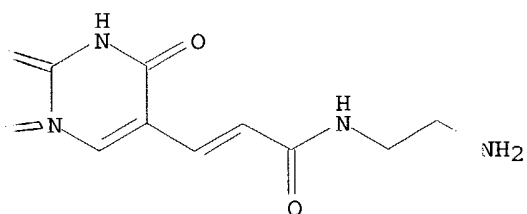
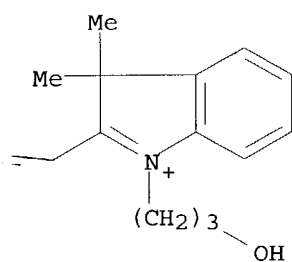
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Double bond geometry unknown.

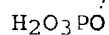
PAGE 1-A



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PAGE 2-A

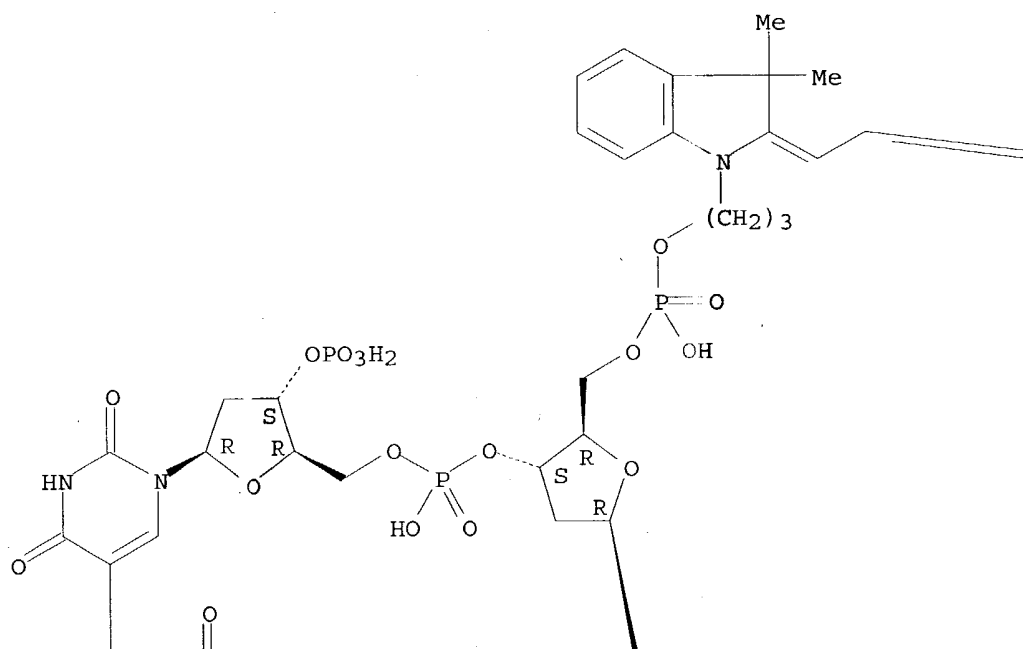


RN 446017-74-9 HCAPLUS

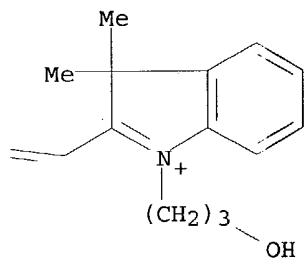
CN 3'-Uridylic acid, 5-[3-[(6-aminohexyl)amino]-3-oxo-1-propenyl]-2'-deoxy-5'-
O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium 2-
yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphonyl]
uridylyl-(3'→5')-5-[3-[(6-aminohexyl)amino]-3-oxo-1-propenyl]-2'-
deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

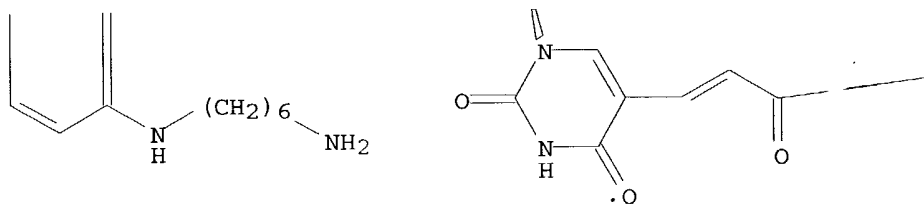
PAGE 1-A



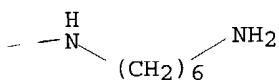
PAGE 1-B



PAGE 2-A



PAGE 2-B

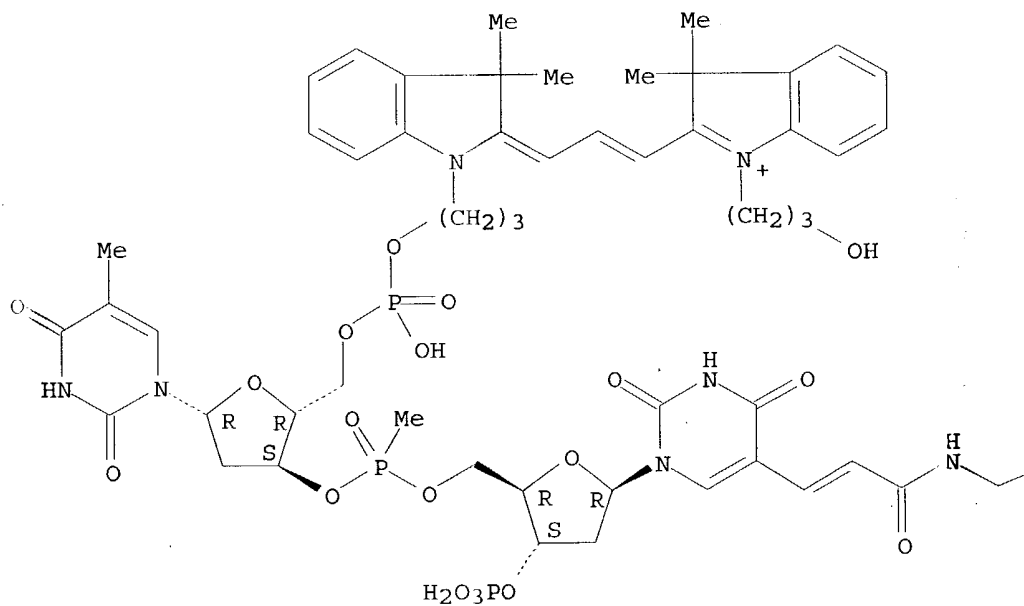


RN 446017-75-0 HCAPLUS

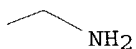
CN 3'-Uridylic acid, P-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]-P-methylthymidylyl-(3'→5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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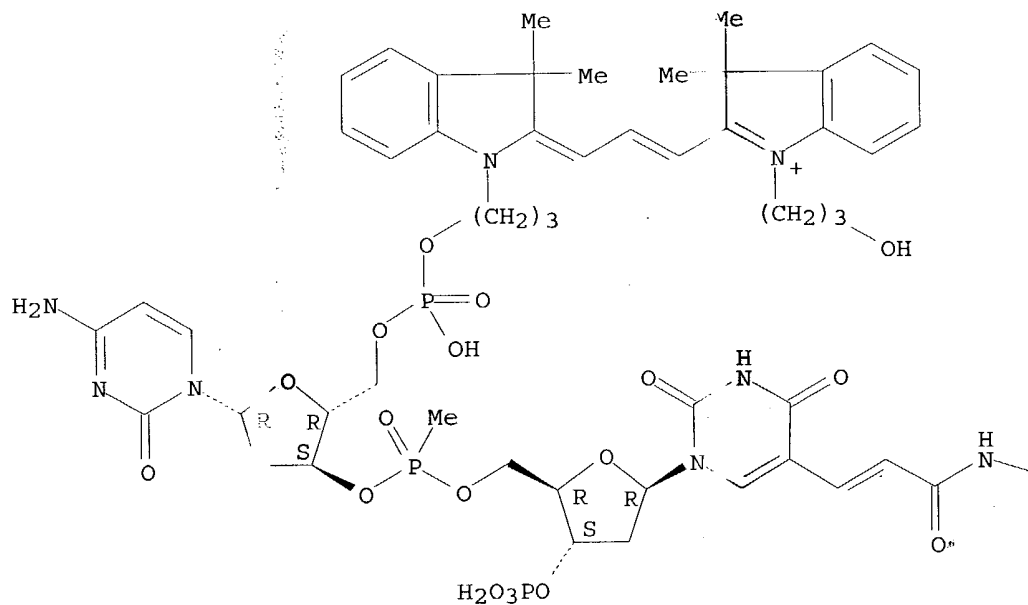


RN 446017-76-1 HCAPLUS

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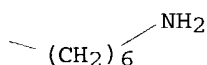
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

PAGE 1-B



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2002:615883 HCAPLUS
 DOCUMENT NUMBER: 137:164653
 TITLE: Charge tags and separation of nucleic acid molecules
 INVENTOR(S): Lyamichev, Victor; Skrzpczynski, Zbigniew; Allawi, Hatim T.; Wayland, Sarah R.; Takova, Tsetska; Neri, Bruce P.
 PATENT ASSIGNEE(S): Third Wave Technologies, Inc., USA
 SOURCE: PCT Int. Appl., 197 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 21
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002063030	A2	20020815	WO 2002-US3423	20020206
WO 2002063030	A3	20031030		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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US 6780982	B2	20040824		
EP 1385996	A2	20040204	EP 2002-724912	20020206
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Searched by P. Ruppel

US 1999-333145
WO 2002-US3423A2 19990614
W 20020206

OTHER SOURCE(S): MARPAT 137:164653

AB The present invention provides charge tags for attachment to materials including solid supports and nucleic acids, wherein the charge tags increase or decrease the net charge of the material. Thus, when an oligonucleotide modified with a charge tag is reduced in size (cleaved) or increased in size (elongated), the resulting product bears a net charge or a charge to mass ratio different from the original oligonucleotide thereby permitting separation of the original and product oligonucleotides on the basis of charge. The present invention therefore further provides methods for separating and characterizing mols. based on the charge differentials between modified and unmodified materials, e.g., by capillary electrophoresis. Thus, MCP1 and ubiquitin transcripts were simultaneously detected in an in vitro assay using the Invader technol. and probes charge tagged with one of two phosphoramidates, i.e., dG-P-Cy3 or dC-P-Cy3 in which P = -O-P(:O)(NHCH₂CH₂NMe₂)O-.

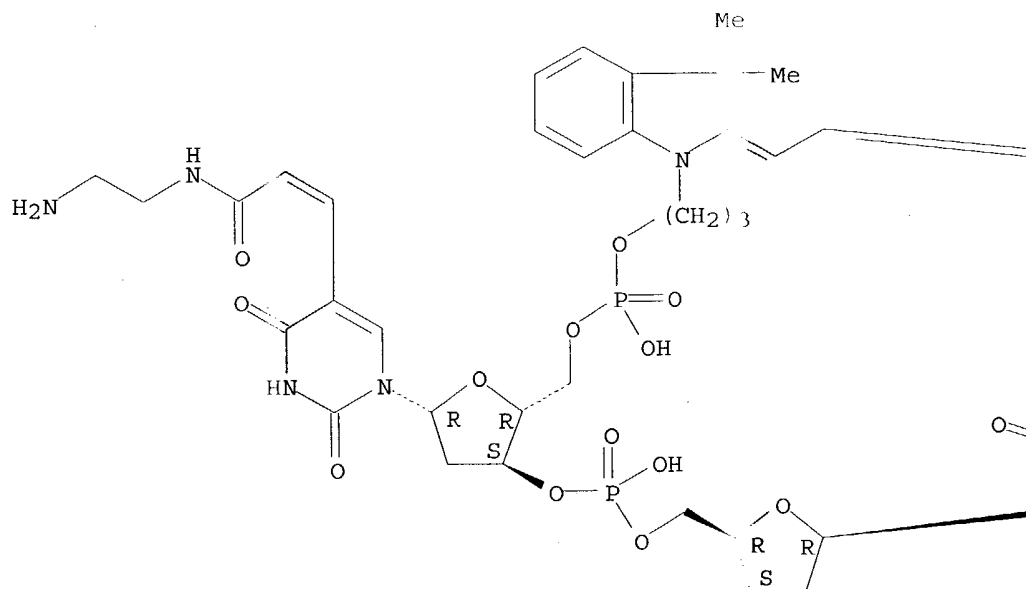
IT 446017-73-8D, oligonucleotide conjugates 446017-74-9D, oligonucleotide conjugates 446017-75-0D, oligonucleotide conjugates 446017-76-1D, oligonucleotide conjugates
RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
(charge tags and separation of nucleic acid mols.)

RN 446017-73-8 HCAPLUS

CN 3'-Uridylic acid, 5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]uridylyl-(3'-5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

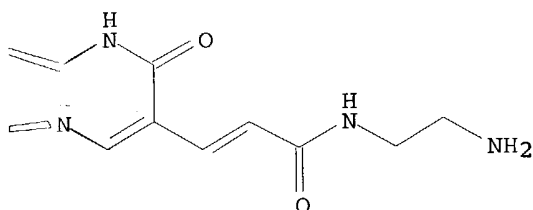
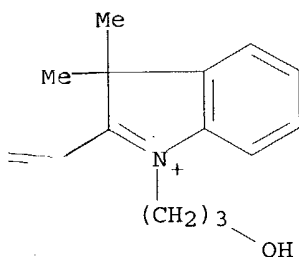
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

PAGE 1-B



PAGE 2-A

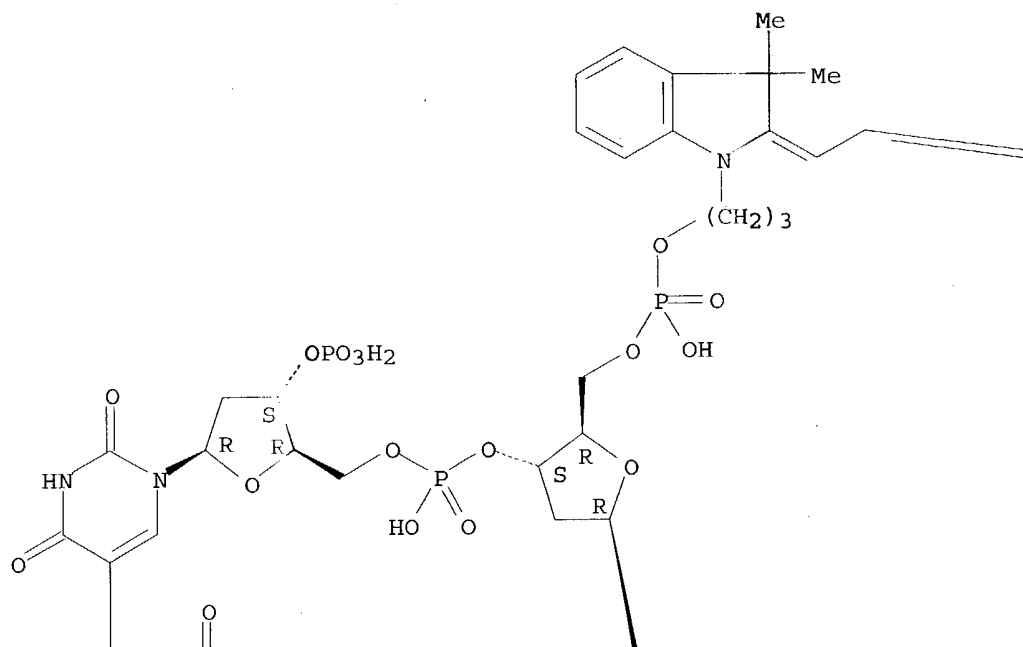
H₂O₃PO

RN 446017-74-9 HCAPLUS
 CN 3'-Uridylic acid, 5-[3-[(6-aminohexyl)amino]-3-oxo-1-propenyl]-2'-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]uridylyl-(3'→5')-5-[3-[(6-aminohexyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

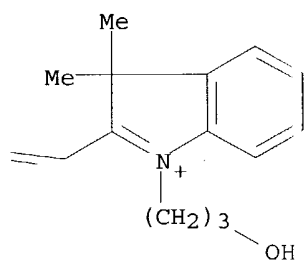
Absolute stereochemistry.
 Double bond geometry unknown.

Searched by P. Ruppel

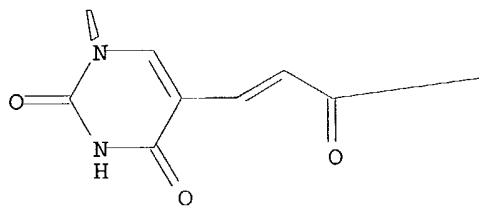
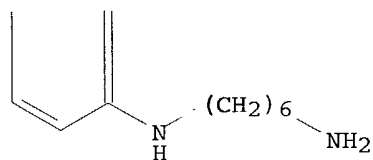
PAGE 1-A



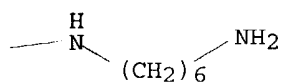
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PAGE 2-A



PAGE 2-B



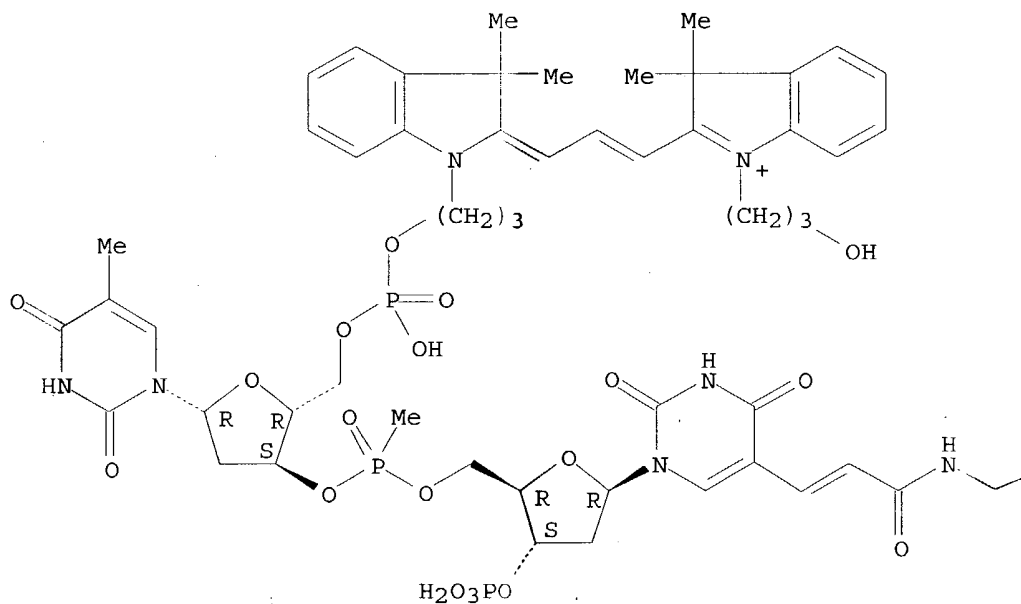
RN 446017-75-0 HCAPLUS

CN 3'-Uridylic acid, P-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]-P-methylthymidylyl-(3'→5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

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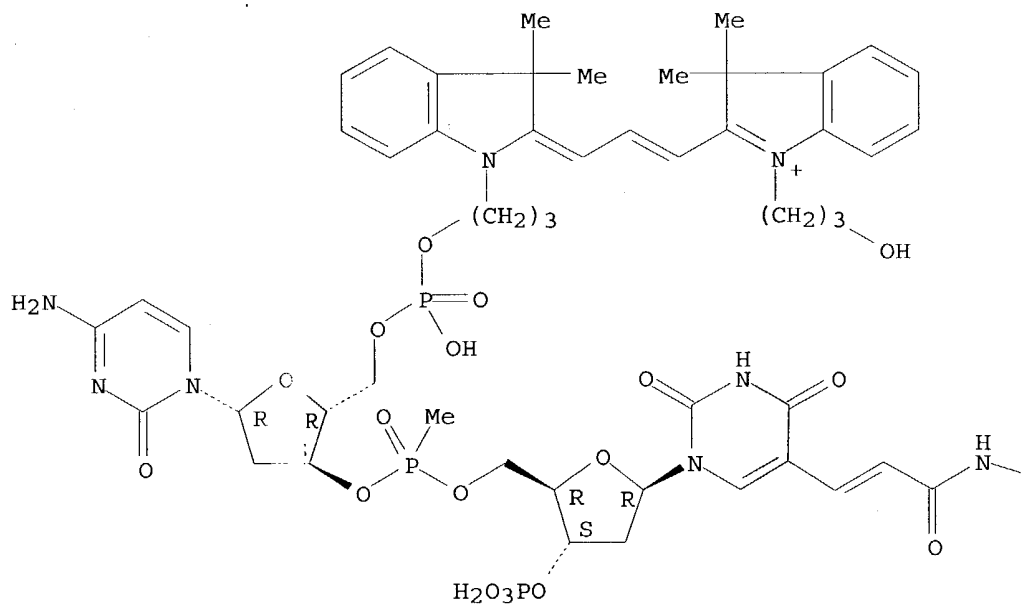


RN 446017-76-1 H2APLUS

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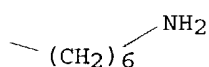
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

PAGE 1-B



L68 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:449855 HCAPLUS

DOCUMENT NUMBER: 137:30254

TITLE: Fluorescent labeling of protein C-terminal with
 puromycin analogs linked to fluorophores and
 high-throughput assay technologies for in vitro
 analysis of protein interactions

INVENTOR(S): Yanagawa, Hiroshi; Doi, Nobuhide; Miyamoto, Etsuko;
 Takashima, Hideaki; Oyama, Rieko

PATENT ASSIGNEE(S): Keio University, Japan

SOURCE: PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046395	A1	20020613	WO 2001-JP10731	20011207 <--
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1350846	A1	20031008	EP 2001-999645	20011207 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: JP 2000-373105 A 20001207 <--
 WO 2001-JP10731 W 20011207

AB A method for modifying protein C-terminal with a reagent which contains an acceptor region having a group capable of binding to a protein through a transpeptidation reaction and a modifying region containing a modifier linked to the acceptor region via a nucleotide linker, is disclosed. A template containing an ORF encoding a protein, a 5'-untranslated region (UTR) containing a promoter and an enhancer located in the 5'-side of the ORF and a 3'-terminal region containing a PolyA sequence located in the 3'-side of the ORF is expressed to thereby synthesize a protein. The protein thus synthesized is then purified. The yield of the modified protein in the

protein C-terminal modification method can be largely improved and protein interactions can be detected at an improved level in the method of detecting interactions among various mols. The authors developed and tested a simple method for fluorescence labeling and interaction anal. of proteins based on a highly efficient in vitro translation system combined with high-throughput technologies such as microarrays and fluorescence cross-correlation spectroscopy (FCCS). By use of puromycin analogs linked to various fluorophores through a deoxycytidylic acid linker, a single fluorophore can be efficiently incorporated into a protein at the carboxyl terminus during in vitro translation. The authors confirmed that the resulting fluorescently labeled proteins are useful for probing protein-protein and protein-DNA interactions by means of pulldown assay, DNA microarrays, and FCCS in model expts. These fluorescence assay systems can be easily extended to highly parallel anal. of protein interactions in studies of functional genomics. Interactions involving c-Fos, c-Jun, and DNA were studied by labeling with rhodamine green or Cy5 using puromycin-containing modifying agents.

IT 436083-84-0 436083-85-1 436083-90-8

436083-91-9 436083-92-0

RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)

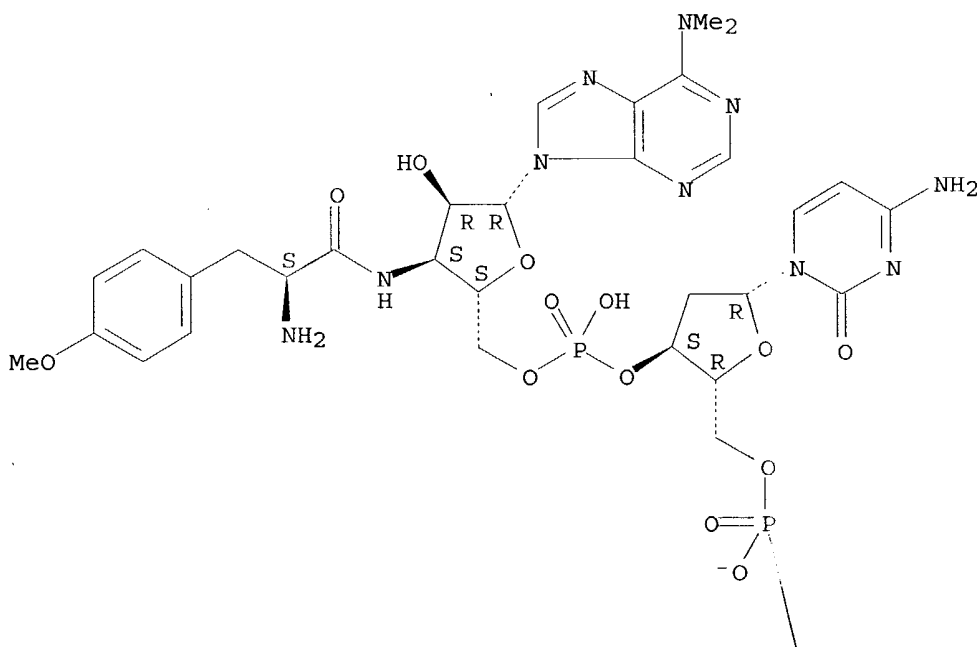
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

RN 436083-84-0 HCAPLUS

CN Adenosine, 2'-deoxy-5'-O-[[3-[2-[5-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-3H-indol-5-yl]propoxy]hydroxyphosphinyl]cytidyl-3'-[[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyl-, inner salt (9CI) (CA INDEX NAME)

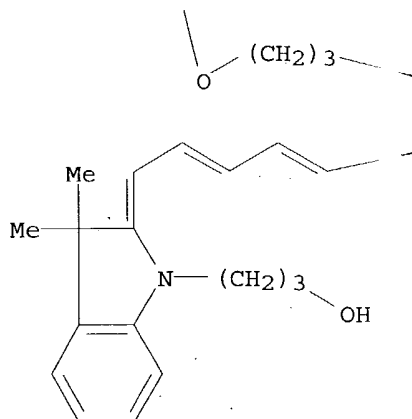
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

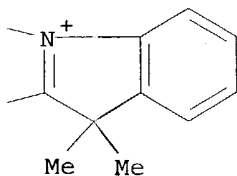


Searched by P. Ruppel

PAGE 2 -A



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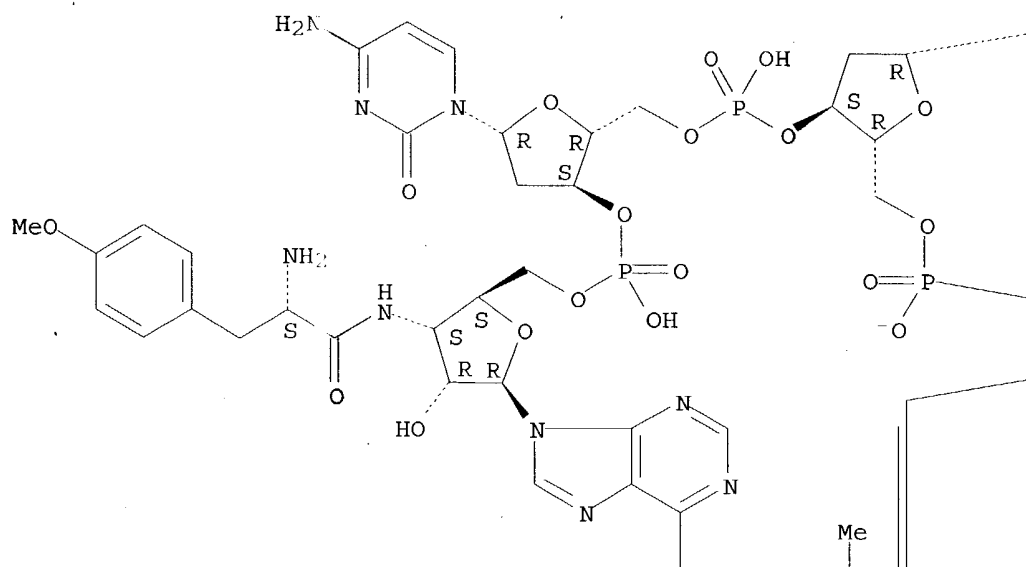
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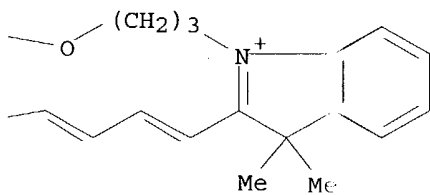
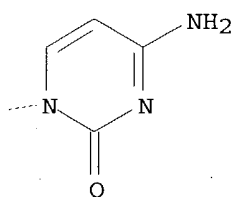
Absolute stereochemistry.

Double bond geometry unknown.

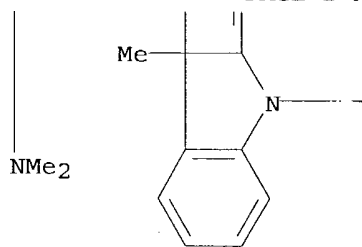
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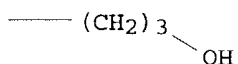
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PAGE 2-A



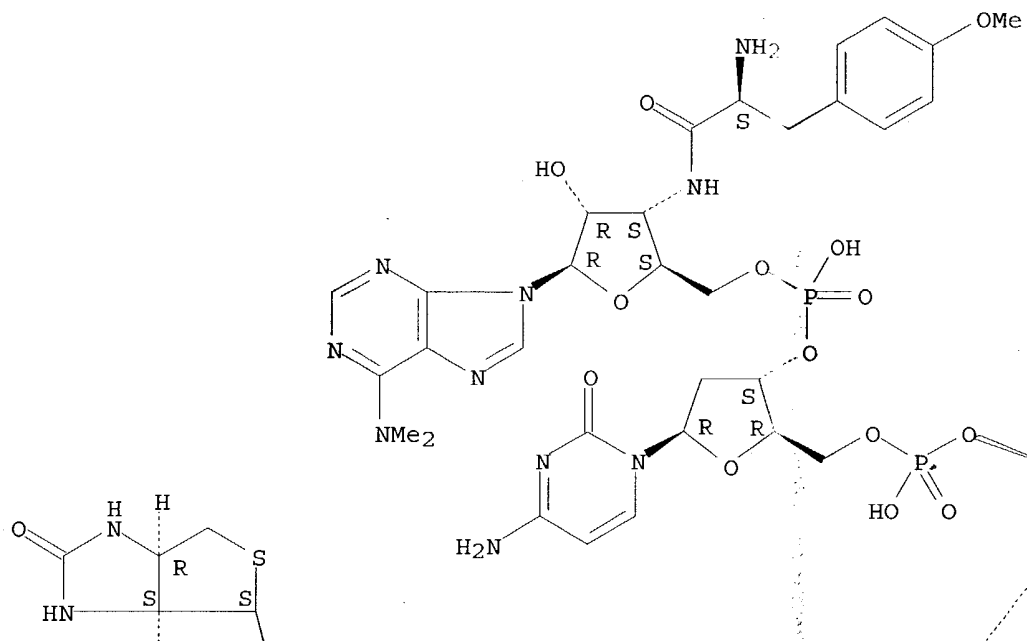
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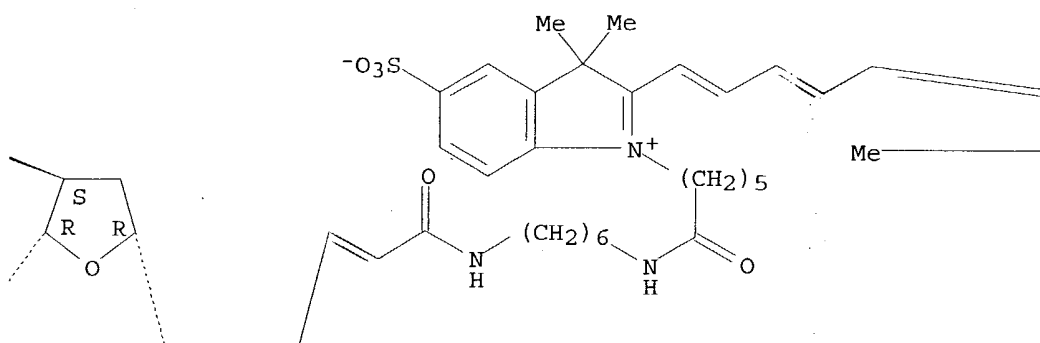
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Absolute stereochemistry.
 Double bond geometry unknown.

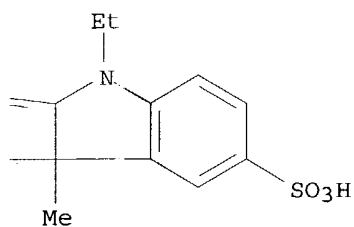
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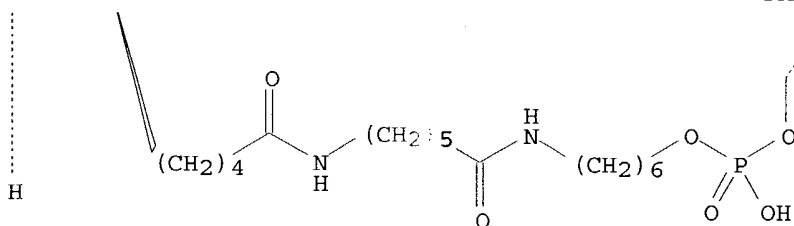
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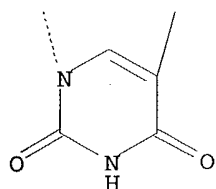
PAGE 1-C



PAGE 2-A



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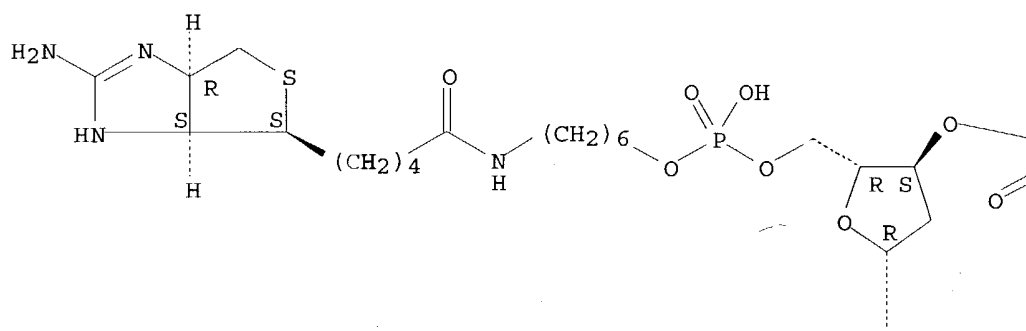
RN 436083-91-9 HCAPLUS
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Absolute stereochemistry.
 Double bond geometry unknown.

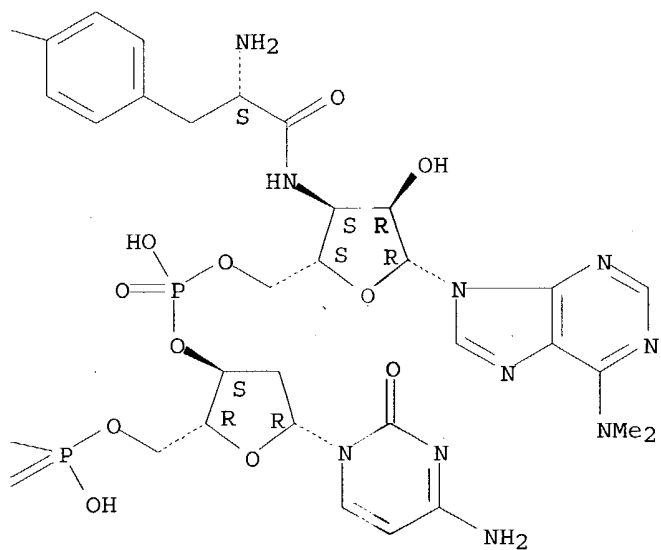
Searched by P. Ruppel

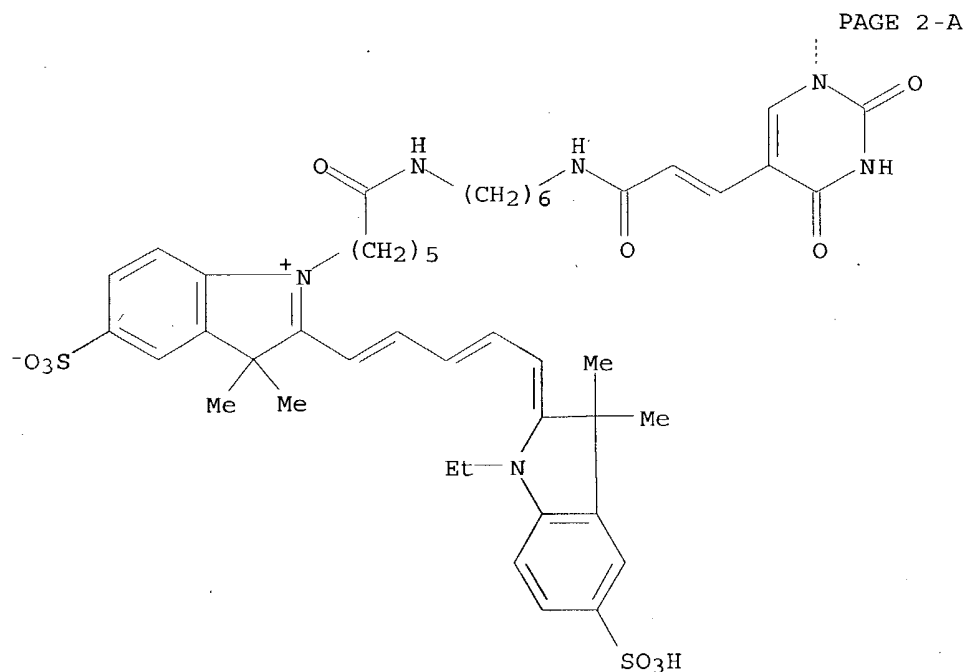
PAGE 1-A

MeO



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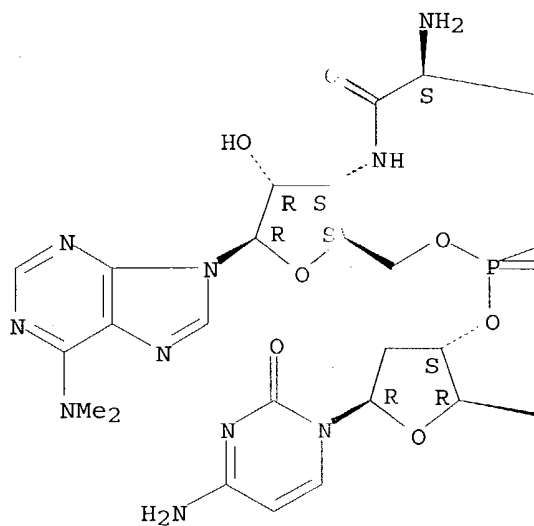
RN 436083-92-0 HCAPLUS

CN Adenosine, 2'-deoxy-5'-O-[[3-[2-[5-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-3H-indol-3-ylidene]propoxy]hydroxyphosphinyl]-5-[3-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]amino]-3-oxo-1-propenyl]uridylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-3'-[[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyl- (9CI) (CA INDEX NAME)

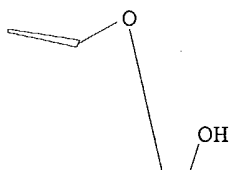
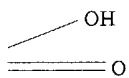
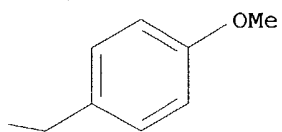
Absolute stereochemistry.

Double bond geometry unknown.

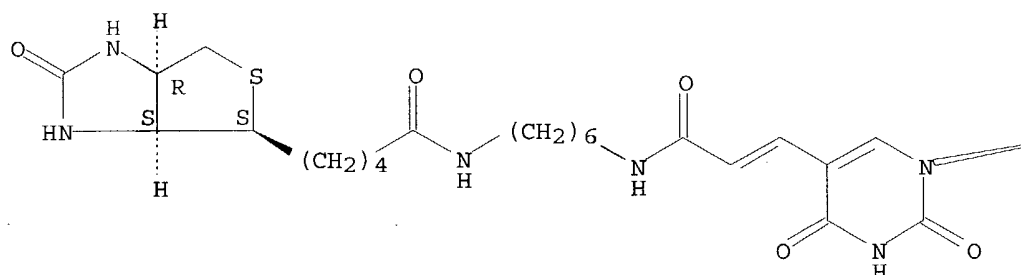
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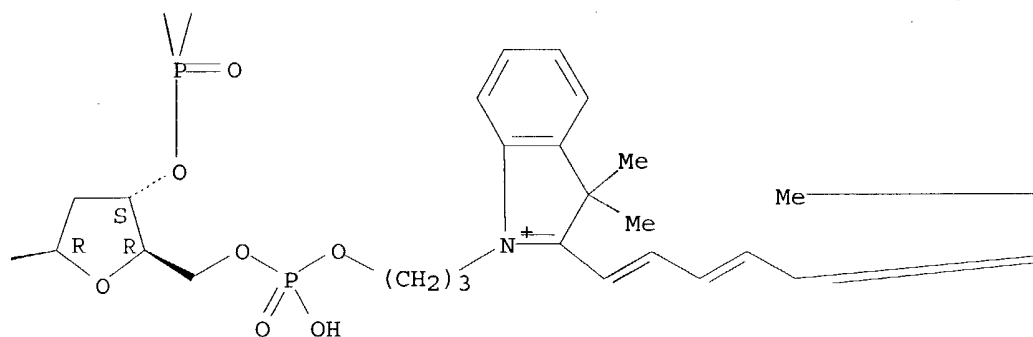
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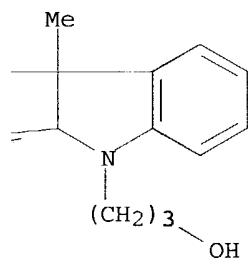
PAGE 2-A



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PAGE 2-C



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2001:730822 HCAPLUS
 DOCUMENT NUMBER: 135:283541

Searched by P. Ruppel

TITLE: A novel polypeptide-protein 11 of growth hormone-family and a polynucleotide sequence encoding the same

INVENTOR(S): Mao, Yumin; Xie, Yi

PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development Inc., Peop. Rep. China

SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

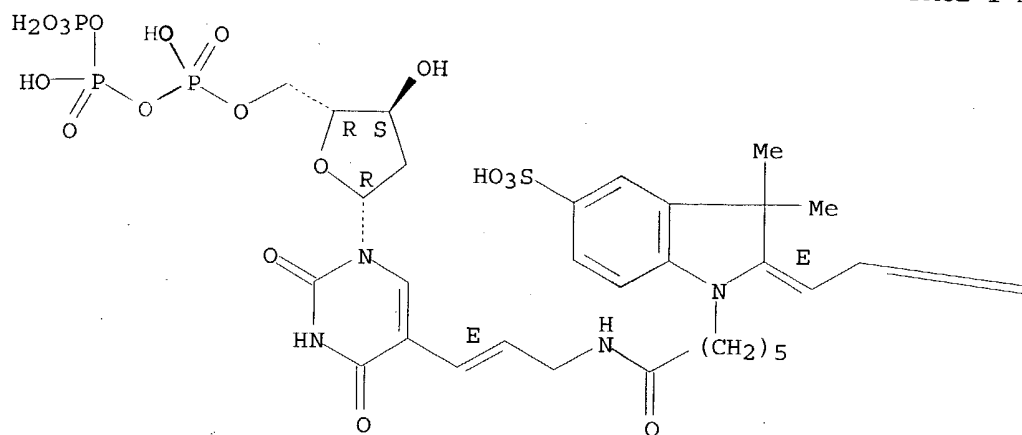
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1315391	A	20011003	CN 2000-115180	20000327 <--
AU 2001058165	A5	20011008	AU 2001-58165	20010326 <--
PRIORITY APPLN. INFO.: CN 2000-115180 A 20000327 <-- WO 2001-CN489 W 20010326				
AB The present invention discloses a novel polypeptide-protein 11 of growth hormone-family and a polynucleotide encoding the same, as well as a method of producing the polypeptide by DNA recombinant technique. The present invention also discloses methods of using the polypeptide in treatment of various diseases, such as malignant tumor, blood disease, HIV infection, immunol. disease, various inflammations and so on. The present invention also discloses an antagonist against the polypeptide and the therapeutic use of the same. Also disclosed is the use of such novel polynucleotide encoding protein 11 of growth hormone-family.				
IT 158613-48-0, Cy3-dUTP 158613-49-1, Cy5-dUTP RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (label; protein 11 of growth hormone-family, analogs, antagonists, promoters, inhibitors, encoding polynucleotides, and antibodies for diagnosis and treatment of cancer, blood disease, HIV, immunol. disease and inflammation)				
RN 158613-48-0 HCAPLUS				
CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[(1E)-3-[[6-[(2E)-2-[(2E)-3-(3,3-dimethyl-5-sulfo-3H-indol-2-yl)-2-propenylidene]-2,3-dihydro-3,3-dimethyl-5-sulfo-1H-indol-1-yl]-1-oxohexyl]amino]-1-propenyl]- (9CI) (CA INDEX NAME)				

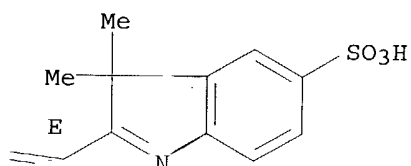
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

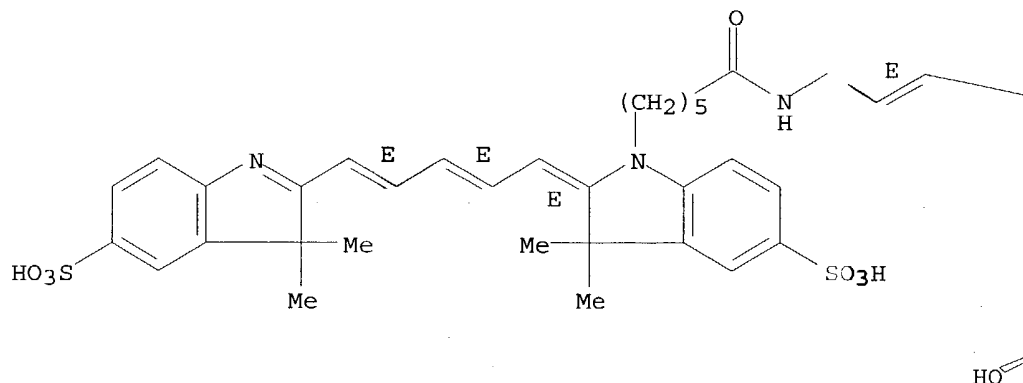


RN 158613-49-1 HCAPLUS

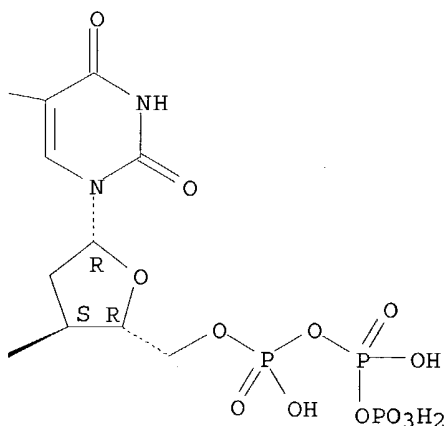
CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[(1E)-3-[[6-[(2E)-2-[(2E,4E)-5-(3,3-dimethyl-5-sulfo-3H-indol-2-yl)-2,4-pentadienylidene]-2,3-dihydro-3,3-dimethyl-5-sulfo-1H-indol-1-yl]-1-oxohexyl]amino]-1-propenyl]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STM

ACCESSION NUMBER: 2001:713386 HCAPLUS

DOCUMENT NUMBER: 135:271898

TITLE: A novel polypeptide-human CDC4 analogous protein and the polynucleotide encoding said polypeptide and antagonistic antibody

INVENTOR(S): Mao, Yumin; Xie, Yi

PATENT ASSIGNEE(S): Biowindow Gene Development Inc., Peop. Rep. China

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searched by P. Ruppel

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 ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
 LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
 SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
 ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CN 1312284 A 20010912 CN 2000-111935 20000307 <--

PRIORITY APPLN. INFO.:

CN 2000-111935 A 20000307 <--

AB The invention discloses a new kind of polypeptide-human CDC4 analogous protein 12 and the polynucleotide encoding said polypeptide and a process for producing the polypeptide by recombinant methods. It also discloses the method of applying the polypeptide for the treatment of various kinds of diseases, such as cancer, hemopathy, HIV infection, immune diseases and inflammation. The antagonist of the polypeptide and therapeutic use of the same is also disclosed. In addition, it refers to the use of polynucleotide encoding said human CDC4 analogous protein 12.

IT 158613-48-0 158613-49-1

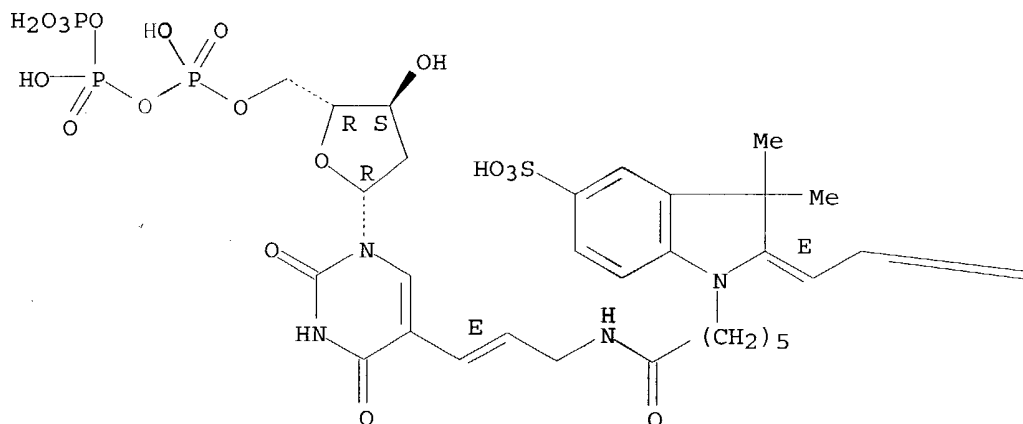
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (label; human CDC4 analogous protein, encoding polynucleotide, antibody, and antagonist for diagnostic and therapeutic uses)

RN 158613-48-0 HCAPLUS

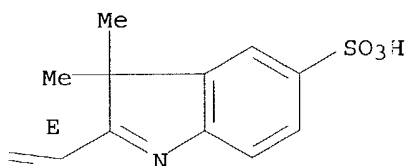
CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[(1E)-3-[[6-[(2E)-2-[(2E)-3-(3,3-dimethyl-5-sulfo-3H-indol-2-yl)-2-propenylidene]-2,3-dihydro-3,3-dimethyl-5-sulfo-1H-indol-1-yl]-1-oxohexyl]amino]-1-propenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

PAGE 1-A



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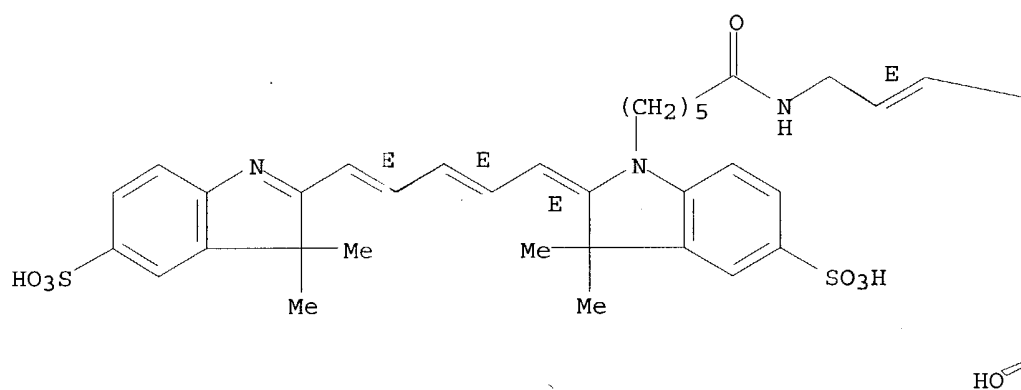


RN 158613-49-1 HCAPLUS

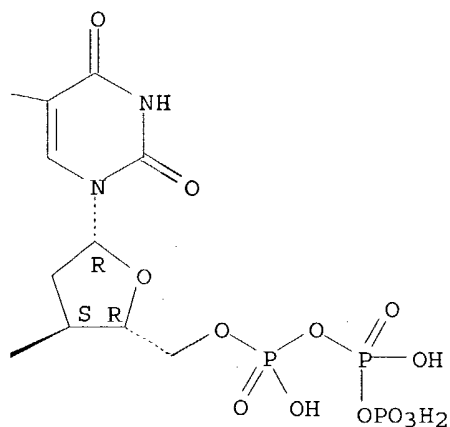
CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[(1E)-3-[[6-[(2E)-2-[(2E,4E)-5-(3,3-dimethyl-5-sulfo-3H-indol-2-yl)-2,4-pentadienyldiene]-2,3-dihydro-3,3-dimethyl-5-sulfo-1H-indol-1-yl]-1-oxohexyl]amino]-1-propenyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:507799 HCAPLUS

DOCUMENT NUMBER: 135:93921

TITLE: Mobility-modifying cyanine dyes

INVENTOR(S): Menchen, Steven M.; Benson, Scott C.; Rosenblum, Barnett B.; Khan, Shaheer H.

PATENT ASSIGNEE(S): PE Corporation, USA

SOURCE: PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049790	A2	20010712	WO 2001-US152	20010103 <--
WO 2001049790	A3	20011206		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6716994	B1	20040406	US 2000-477270	20000104 <--
EP 1244749	A2	20021002	EP 2001-901693	20010103 <--
EP 1244749	B1	20040901		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2003519275	T2	20030617	JP 2001-550324	20010103 <--
PRIORITY APPLN. INFO.:			US 2000-477270	A 20000104 <--
			WO 2001-US152	W 20010103

OTHER SOURCE(S): MARPAT 135:93921

AB The present invention provides a novel class of fluorescent cyanine dye

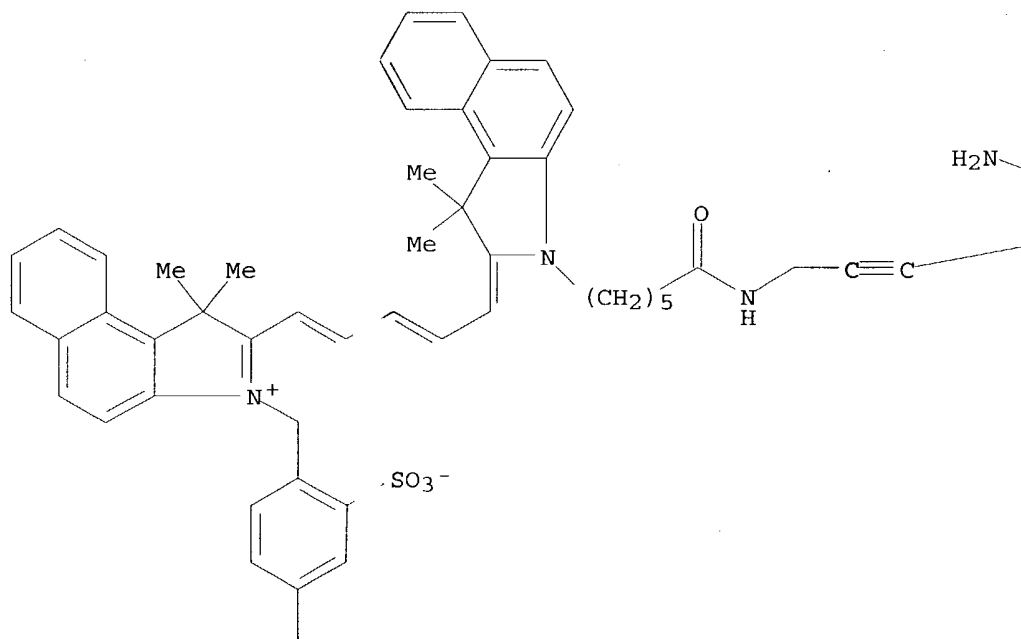
Searched by P. Ruppel

IT 349491-76-5P 349491-78-7P

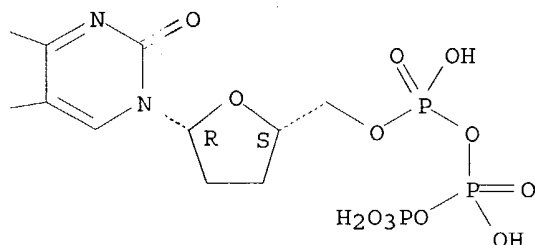
RN 349491-76-5 HCAPLUS

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



PAGE 2-A

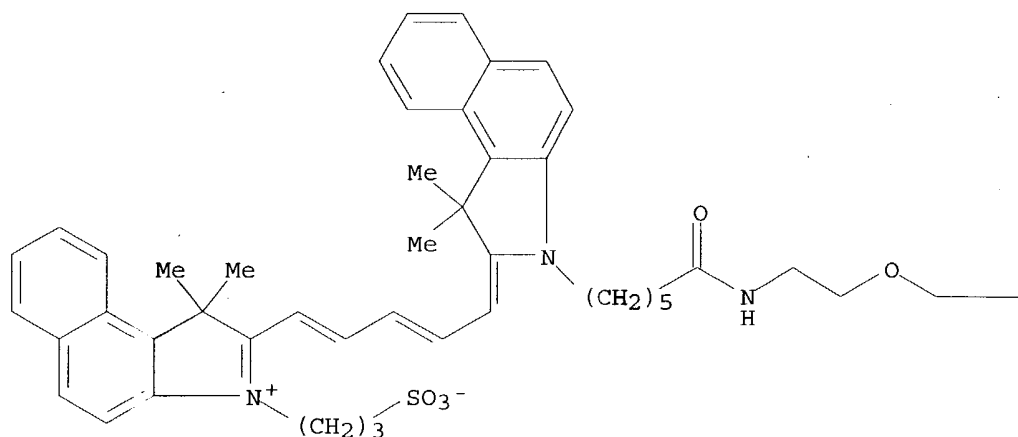


RN 349491-78-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-1,1-dimethyl-3-[6-oxo-6-[[2-[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propynyl]oxy]ethyl]amino]hexyl]-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

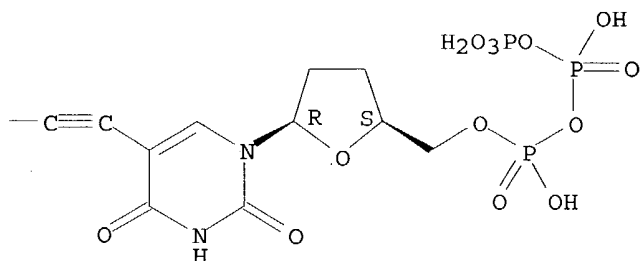
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

PAGE 1-B



L68 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:814658 HCAPLUS
 DOCUMENT NUMBER: 133:345552
 TITLE: High-density labeling of DNA with modified or
 chromophore-tagged nucleotides using DNA polymerases
 INVENTOR(S): Muehlegger, Klaus; Angerer, Bernhard; Seela, Frank;
 Ankenbauer, Waltraud; Augustin, Martin; Gumbiowski,
 Karin; Zulauf, Matthias
 PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany
 SOURCE: PCT Int. Appl., 56 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000068422	A2	20001116	WO 2000-EP4036	20000505 <--
WO 2000068422	A3	20020404		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1208230	A2	20020529	EP 2000-936714	20000505 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003532373	T2	20031105	JP 2000-616387	20000505 <--
PRIORITY APPLN. INFO.: EP 1999-108601 A 19990507 <--				
WO 2000-EP4036 W 20000505 <--				

AB Subjects of the inventions are methods for enzymic DNA labeling. Nucleotides modified to carry functional or detectable groups are incorporated into newly synthesized DNA by DNA polymerases. DNA is synthesized from modified nucleoside triphosphates by DNA polymerases such that the newly synthesized DNA consists exclusively of modified nucleotides or contains modified nucleotides in high d. There are provided modified nucleoside triphosphates which are incorporated by DNA polymerases and a group of DNA polymerases which incorporate these nucleoside triphosphates in high d. Thus, modified nucleoside triphosphates, such as 7-aminopentynyl-7-deazaadenosine-2'-

Searched by P. Ruppel

deoxyribonucleoside-5'-triphosphate, were synthesized. Incorporation of this and other modified nucleoside triphosphates into DNA in the presence of template, primer, and Carboxydotherrmus hydrogenoformans, Pyrococcus, Thermococcus gorgonarius (Tgo), Pyrococcus woesei (Pwo), or a blend of Tgo and Pwo polymerases was analyzed. The combination of Tgo and Pwo polymerases seemed to be most effective.

IT 306274-02-2P 306274-03-3P 306274-04-4P

RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(high-d. labeling of DNA with modified or chromophore-tagged nucleotides using DNA polymerases)

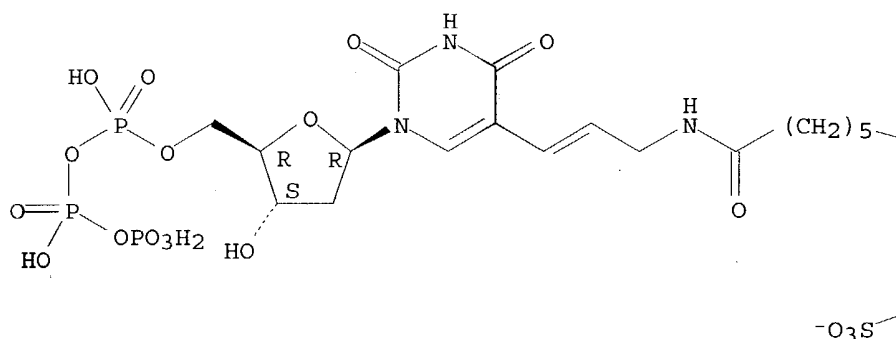
RN 306274-02-2 HCAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[6-[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]-1-oxohexyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)

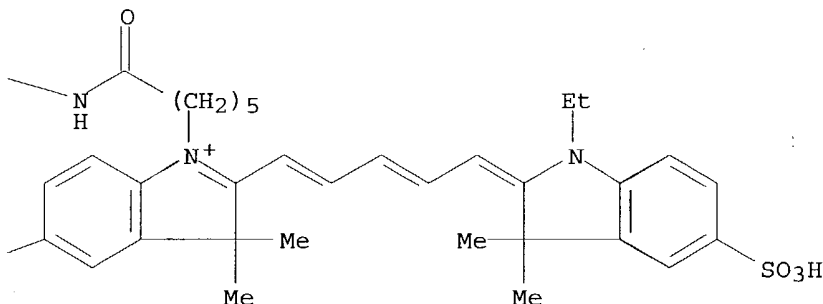
Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



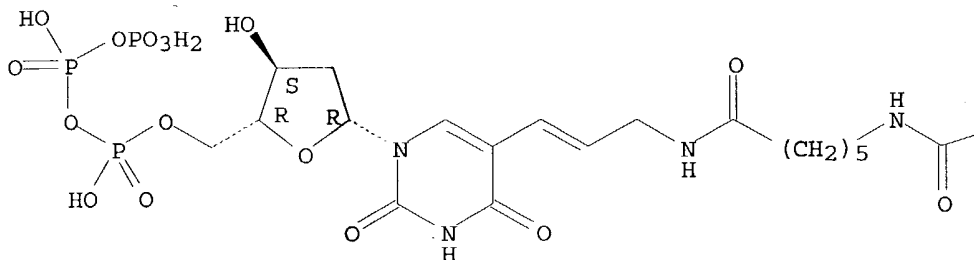
RN 306274-03-3 HCAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[6-[[6-[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-

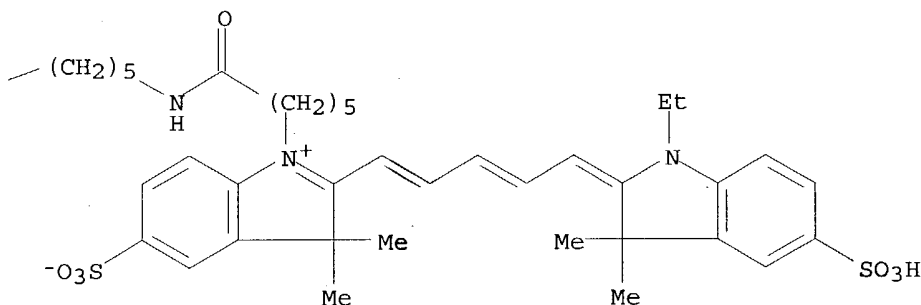
pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]-1-oxohexyl]amino]-1-oxohexyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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PAGE 1-B

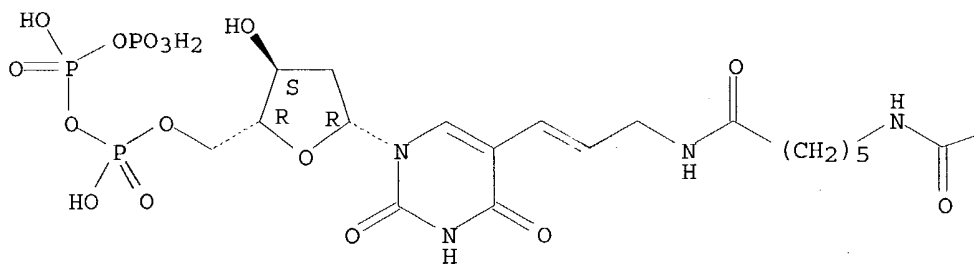


RN 306274-04-4 HCAPLUS

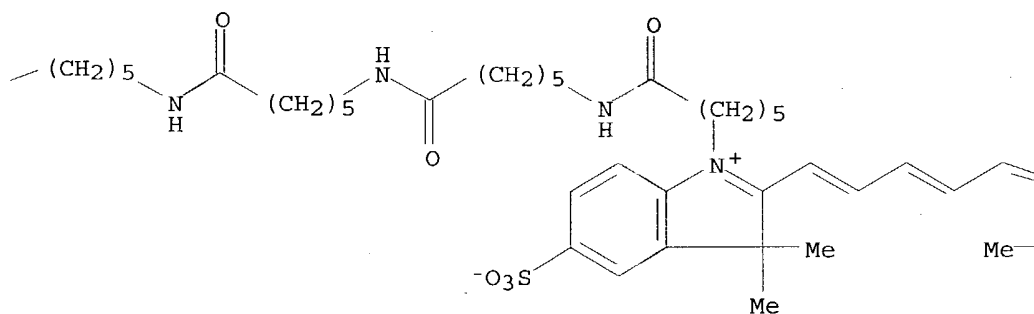
CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[38-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-5,12,19,26,33-pentaoxo-4,11,18,25,32-pentaazaooctatriacont-1-en-1-yl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

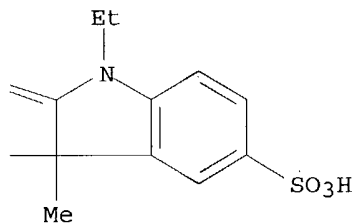
PAGE 1-A



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PAGE 1-C



L68 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:511278 HCAPLUS

DOCUMENT NUMBER: 131:140472

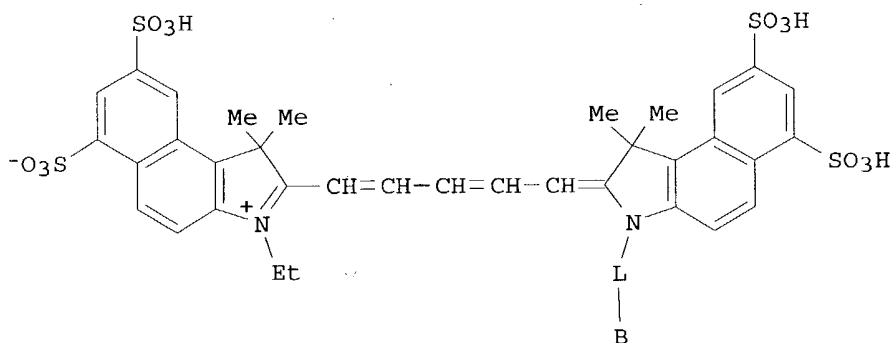
TITLE: Dideoxy dye-labeled terminators for DNA sequencing

INVENTOR(S): Kumar, Shiv; Nampalli, Satyam; McArdle, Bernard F.;

Searched by P. Ruppel

FULLER, Carl W.
 PATENT ASSIGNEE(S): Amersham Pharmacia Biotech, Inc., USA
 SOURCE: PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9940223	A1	19990812	WO 1999-US2104	19990202 <--
W: AU, CA, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2319777	AA	19990812	CA 1999-2319777	19990202 <--
AU 9925717	A1	19990823	AU 1999-25717	19990202 <--
EP 1060264	A1	20001220	EP 1999-905589	19990202 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002505853	T2	20020226	JP 2000-530633	19990202 <--
PRIORITY APPLN. INFO.:			US 1998-18695	A 19980204 <--
			WO 1999-US2104	W 19990202 <--
OTHER SOURCE(S):		MARPAT 131:140472		
GI				



AB A kit is provided for DNA sequencing comprising a first, second, third and fourth dye-labeled terminator mols., each of the dye terminator mols. comprising a dye mol., a linker of at least 10 atoms in length and a dideoxynucleoside mono- or triphosphate, and a thermostable DNA polymerase. The dye terminators provide uniform band intensities and the resolution of dye-induced compression artifacts in DNA sequencing. The dideoxy dye-labeled terminators of the present invention are particularly well suited for use with DNA polymerases that are thermostable or which contain an altered dNMP binding site. Their use do not require the use of nucleotide analogs such as dITP or α -thio nucleotides to eliminate dye-induced compression artifacts. There is a strong correlation between the length of the link between the dye mol. and the nucleotide and band uniformity, but little correlation between the type of dye (or other parameters) and band intensity. Dye terminators with linkers of 10 or more atoms up to 25 atoms when used in sequencing reactions produce bands in sequencing gels of significantly improved uniformity compared with dye

terminators with linkers less than 10 atoms. In preferred embodiments, the dye terminators comprise structure I (B = 2',3'-dideoxy-7-deaza-ATP or -GTP or 2',3'-dideoxy-UTP or -CTP; L = linker attached to 7 position of purines or 5 position of pyrimidines; when B = deaza-ddATP or deaza-ddGTP, L = C.tplbond.CCH2NHCO(CH2)5; when B = ddUTP or ddCTP, L = C.tplbond.CCH2NHCO(CH2)5NHCO(CH2)5).

IT 235743-48-3P 235743-49-4P 235743-50-7P

235743-51-8P

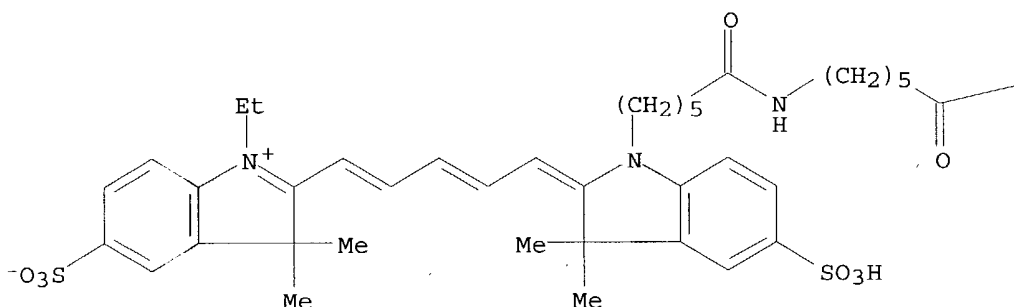
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(dideoxy dye-labeled terminators for DNA sequencing)

RN 235743-48-3 HCAPLUS

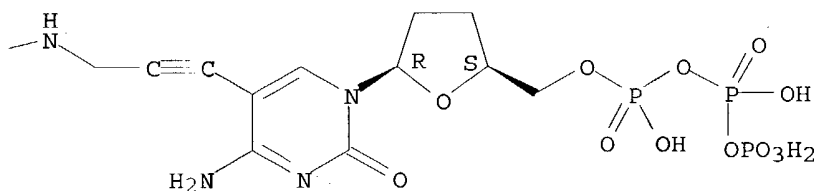
CN 3H-Indolium, 2-[5-[1-[6-[[6-[[3-[4-amino-1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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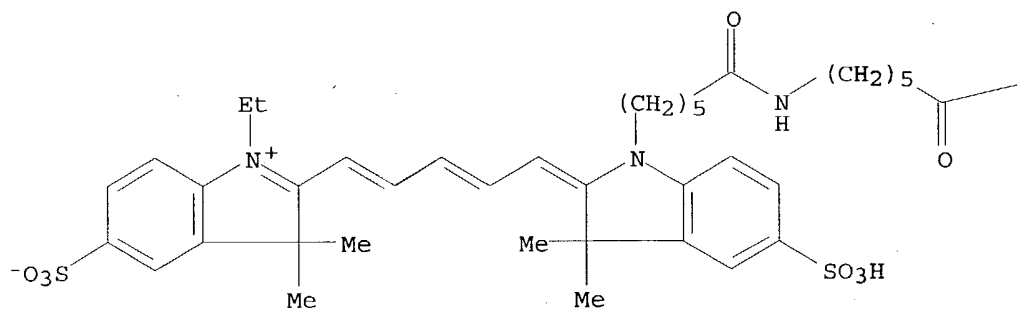


RN 235743-49-4 HCAPLUS

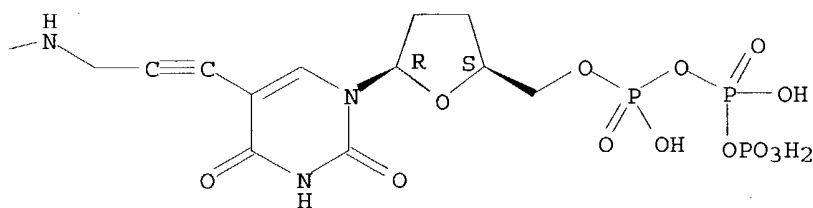
CN 3H-Indolium, 2-[5-[1-[3-dihydro-3,3-dimethyl-1-[6-oxo-6-[[6-oxo-6-[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propynyl]amino]hexyl]amino]hexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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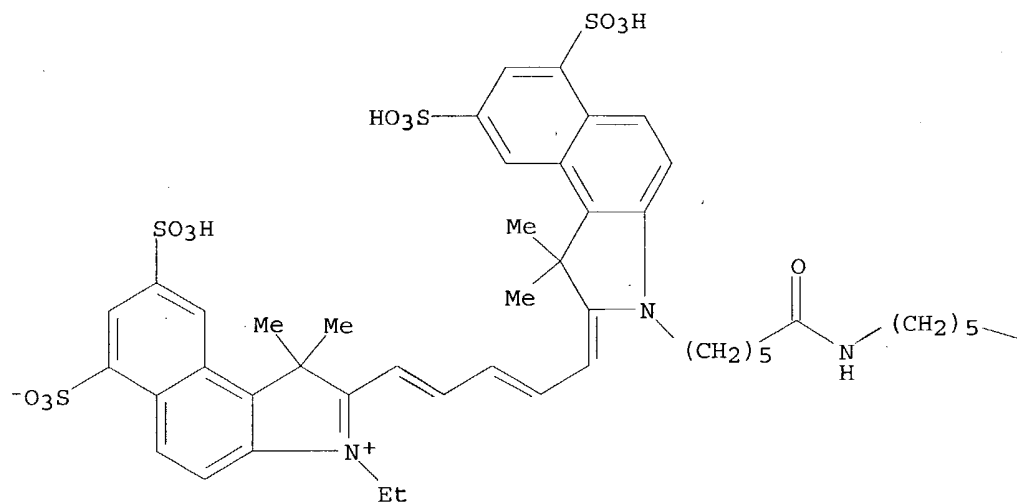


RN 235743-50-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-1,1-dimethyl-3-[6-oxo-6-[[6-oxo-6-[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propynyl]amino]hexyl]amino]hexyl]-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (9CI) (CA INDEX NAME)

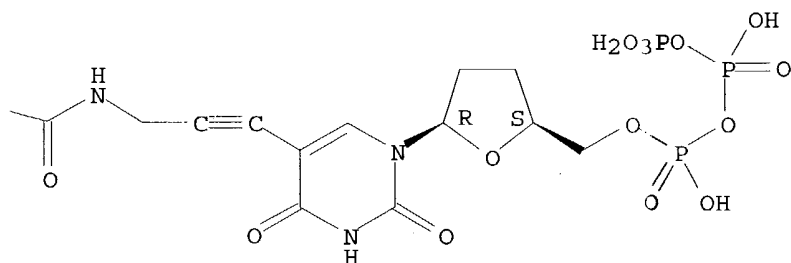
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

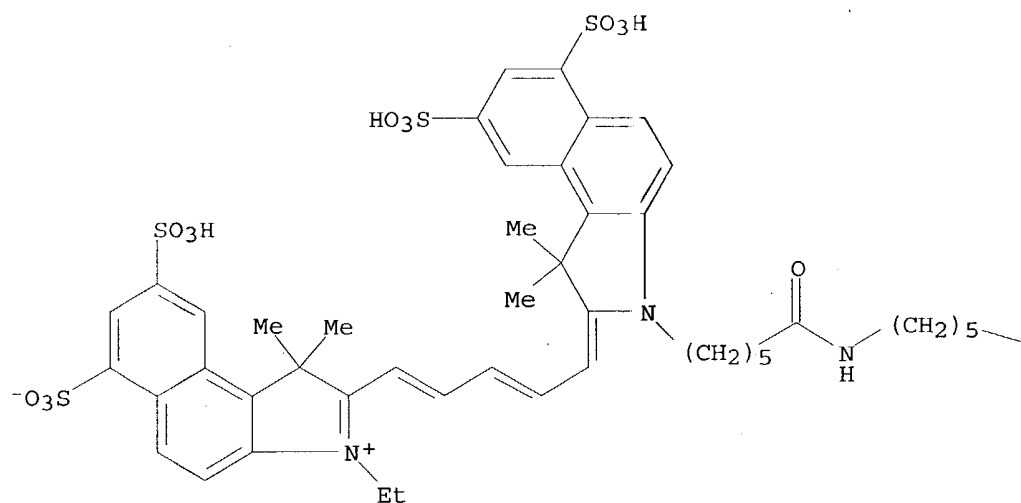
PAGE 1-B



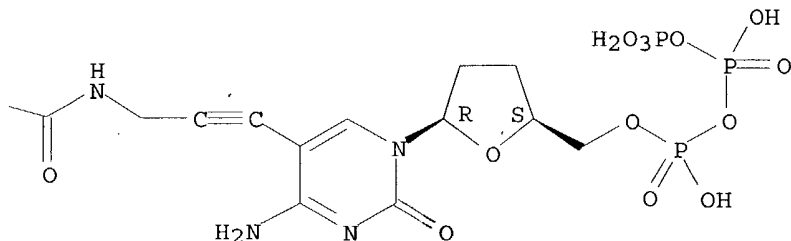
RN	235743-51-8	HCAPLUS
CN	1H-Benz[e]indolium, 2-[5-[3-[6-[6-[3-[4-amino-1,2-dihydro-2-oxo-1- [(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa- 3,5,7-triphosphahept-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propynyl]amino]-6- oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H- benz[e]indol-2-ylidene]-1,3-pentadienyl]-3-ethyl-1,1-dimethyl-6,8-disulfo- , inner salt (9CI) (CA INDEX NAME)	

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:27840 HCAPLUS

DOCUMENT NUMBER: 130:66737

TITLE: Preparation of non-sulfonated cyanine dyes for labeling nucleosides and nucleotides

INVENTOR(S): Brush, Charles K.; Reimer, Ned D.

PATENT ASSIGNEE(S): Amersham Pharmacia Biotech Inc., USA

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

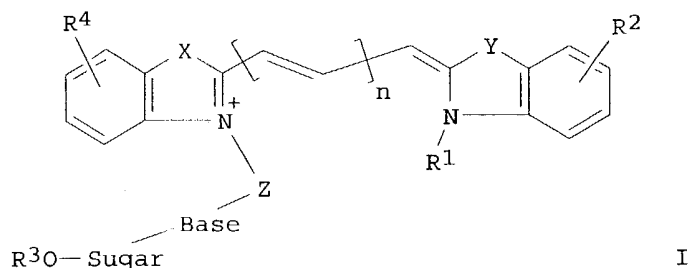
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858942	A1	19981230	WO 1998-US12593	19980616 <--
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5986086	A	19991116	US 1997-879596	19970620 <--
EP 989990	A1	20000405	EP 1998-930319	19980616 <--
EP 989990	B1	20030604		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, IE				
JP 2002507203	T2	20020305	JP 1999-504736	19980616 <--
AT 242260	E	20030615	AT 1998-930319	19980616 <--
PRIORITY APPLN. INFO.:			US 1997-879596	A 19970620 <--
			WO 1998-US12593	W 19980616 <--
OTHER SOURCE(S):		MARPAT 130:66737		
GI				

Searched by P. Ruppel



AB A chemical compound of formula: I, wherein R1 is selected from the group consisting of alkyl, aralkyl, and substituted alkyl groups; R3 is selected from the group consisting of H, PO3-2; P2O6-3; P3O9-4, and α -thio phosphates (PSO2-2; P2SO5-3; P3SO8-4); and α BH3- phosphates (P(BH3)O2-2, P2(BH3)O5-3, P3(BH3)O8-4); R4 is selected from the group consisting of H, lower alkyl, acyl, (CH2)pCOO(CH2)qCH3 wherein p is an integer from 0 to 4 and q is an integer from 0 to 4, and 5,6; 6,7; or 7,8-butadienyl, R2 is selected from the group consisting of H, lower alkyl, acyl, (CH2)pCOO(CH2)qCH3 wherein p is an integer from 0 to 4 and q is an integer from 0 to 4 and 5,6; 6,7; or 7,8-butadienyl; n is 1, 2 or 3 to form a second fused aromatic; X or Y are selected from the group consisting of O, S, C(R5)2, or N(R5), wherein R5 is preferably CH3 or a lower alkyl; and R3-O-Sugar-Base is a nucleoside or nucleotide is disclosed. Thus, 1-3'''-(N4-6-amidohexyl-2',3'-dideoxycytidine-5'-O-triphosphate)-succinoyloxypropyl)-1'-(3'''-hydroxypropyl)-3,3,3',3'-tetramethylindodicarbocyanine was prepared from N4-(6-aminohexyl)-ddCTP and indodicarbocyanine-NHS ester in 59 % yield.

IT 218146-51-1P 218146-52-2P 218146-53-3P
218146-56-6P 218146-60-2P 218146-61-3P
218146-66-8P 218146-68-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of non-sulfonated cyanine dyes for labeling nucleosides and nucleotides)

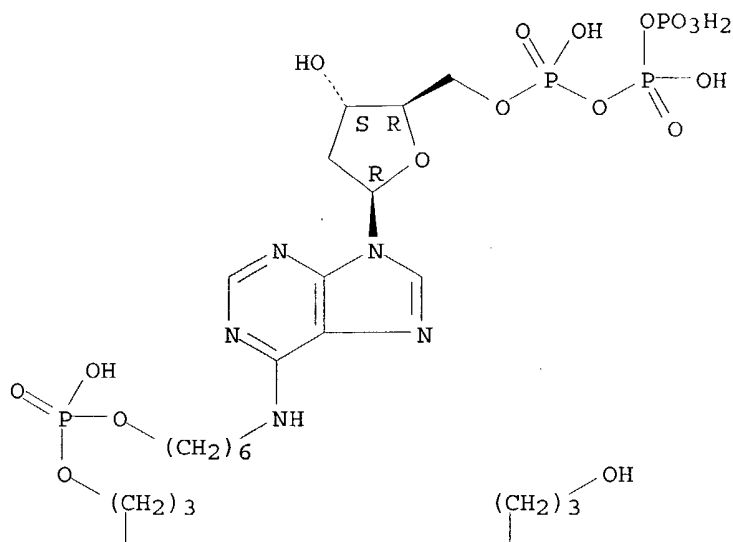
RN 218146-51-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[3-[[[6-[[9-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]- β -D-erythro-pentofuranosyl]-9H-purin-6-yl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]propyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1-(3-hydroxypropyl)-3,3-dimethyl- (9CI) (CA INDEX NAME)

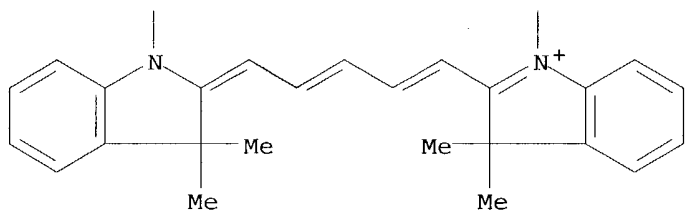
Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-A



PAGE 2-A

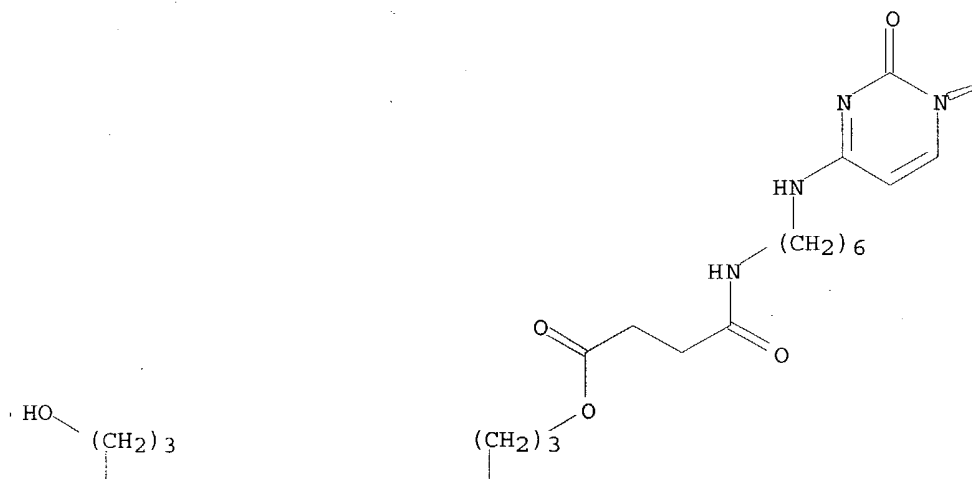


RN 218146-52-2 HCAPLUS
 CN 3H-Indolium, 2-[5-[1-[3-[4-[[6-[[1-[2-deoxy-5-O-[hydroxy[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]amino]hexyl]amino]-1,4-dioxobutoxy]propyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-1-(3-hydroxypropyl)-3,3-dimethyl- (9CI) (CA INDEX NAME)

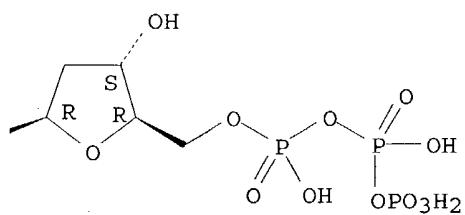
Absolute stereochemistry.
 Double bond geometry unknown.

Searched by P. Ruppel

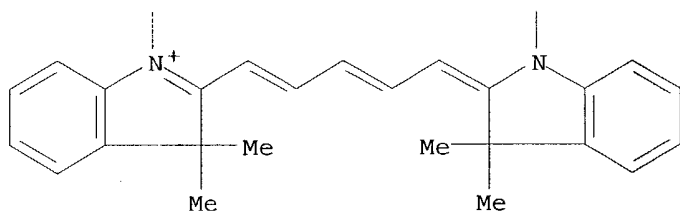
PAGE 1-A



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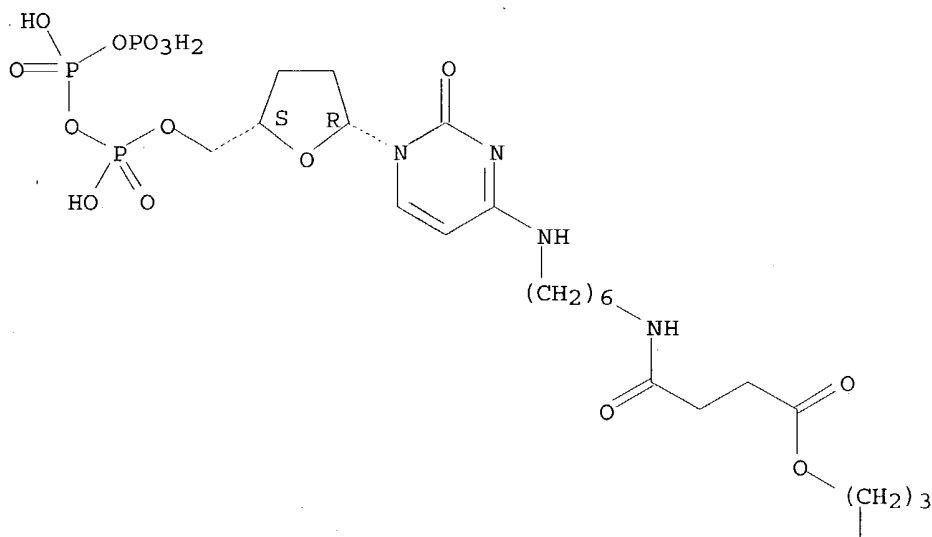
RN 218146-53-3 HCAPLUS
 CN 3H-Indolium, 2-[5-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-

Searched by P. Ruppel

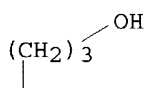
ylidene]-1,3-pentadienyl]-1-[3-[4-[[6-[[1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-4-pyrimidinyl]amino]hexyl]amino]-1,4-dioxobutoxy]propyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

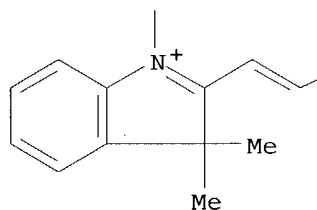
PAGE 1-A



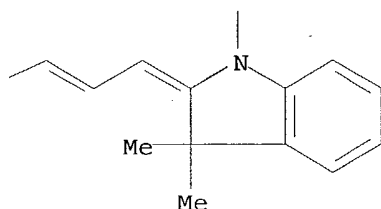
PAGE 1-B



PAGE 2-A



PAGE 2-B

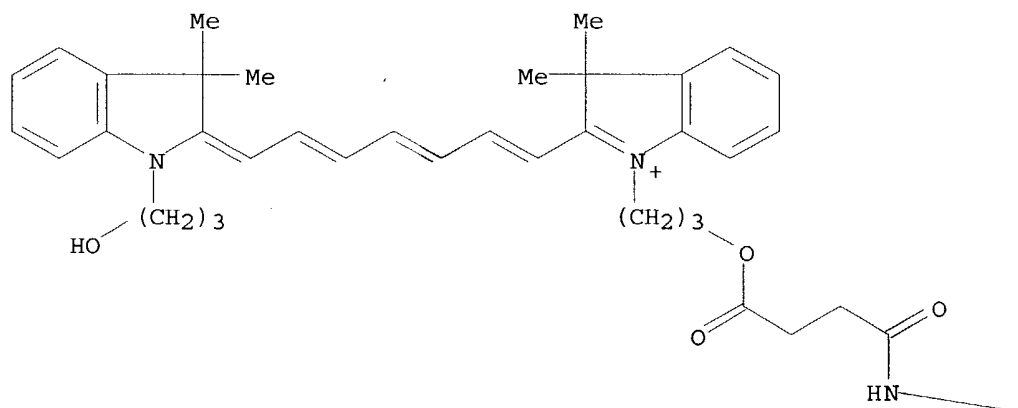


RN 218146-56-6 HCAPLUS
 CN 3H-Indolium, 2-[7-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-[3-[4-[[6-[[1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-4-pyrimidinyl]amino]hexyl]amino]-1,4-dioxobutoxy]propyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)

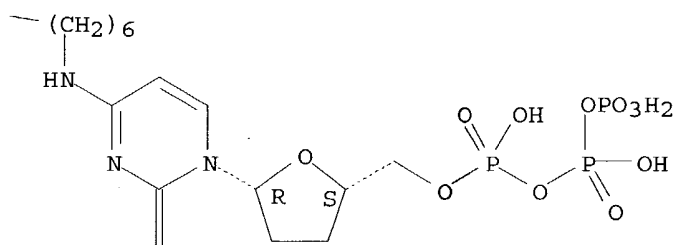
Searched by P. Ruppel

Absolute stereochemistry.
Double bond geometry unknown.

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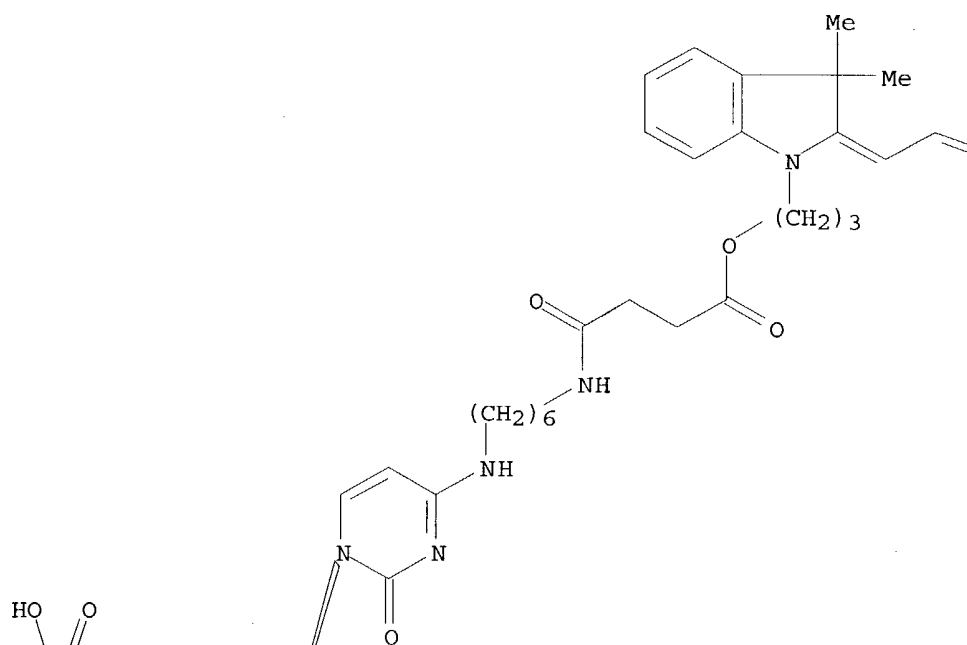
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Searched by P. Ruppel

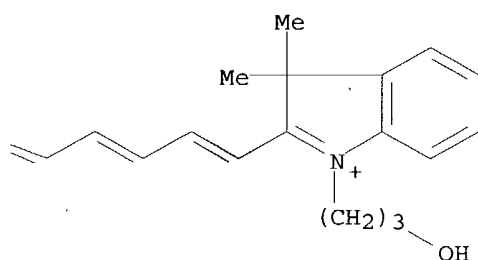
[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]- β -D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]amino]hexyl]amino]-1,4-dioxobutoxy]propyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-(3-hydroxypropyl)-3,3-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

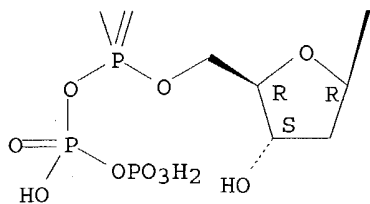
PAGE 1-A



PAGE 1-B



PAGE 2-A

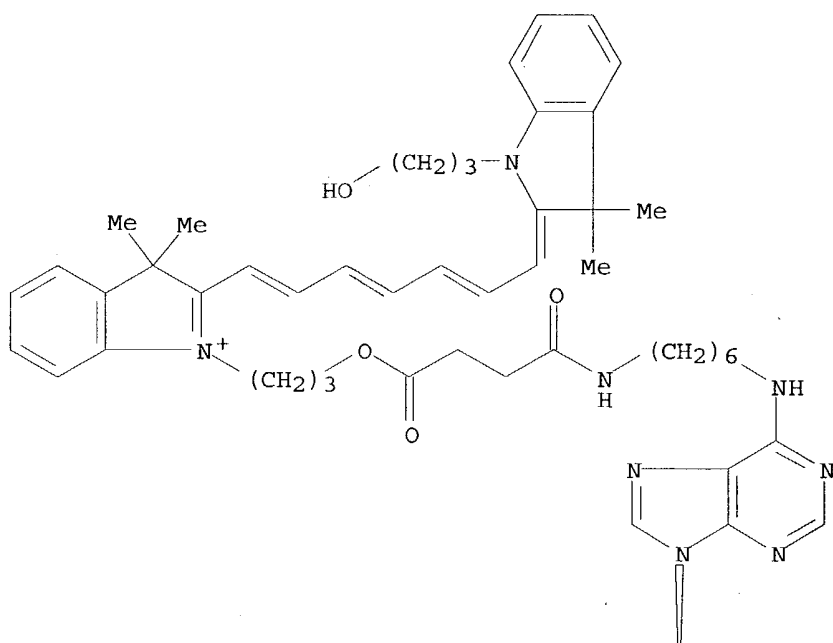


RN 218146-61-3 HCAPLUS

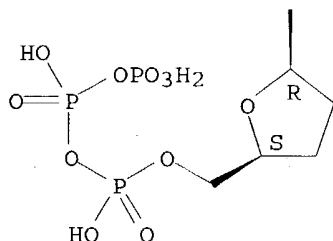
CN 3H-Indolium, 2-[7-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-[3-[1,4-dioxo-4-[[6-[[9-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-9H-purin-6-yl]amino]hexyl]amino]butoxy]propyl]-3,3-dimethyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



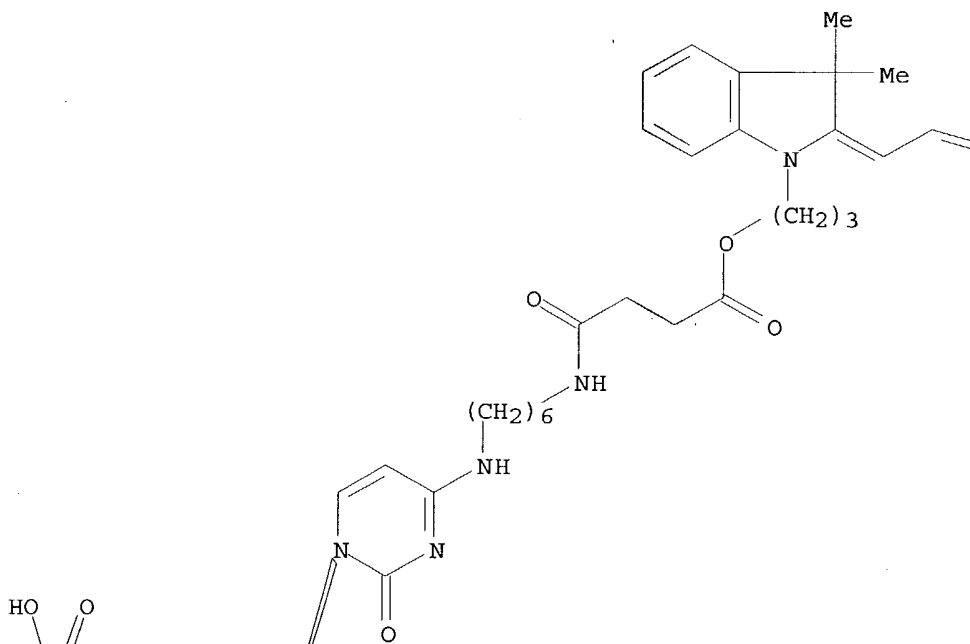
PAGE 2-A



RN 218146-66-8 HCAPLUS
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 [hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-
 pentofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]amino]hexyl]amino]-1,4-
 dioxobutoxy]propyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-
 propenyl]-1-(3-hydroxypropyl)-3,3-dimethyl- (9CI) (CA INDEX NAME)

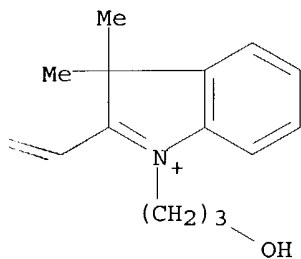
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

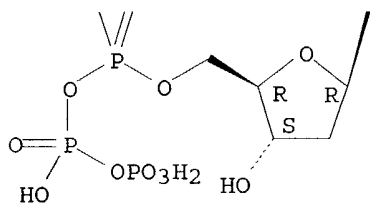


Searched by P. Ruppel

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PAGE 2-A

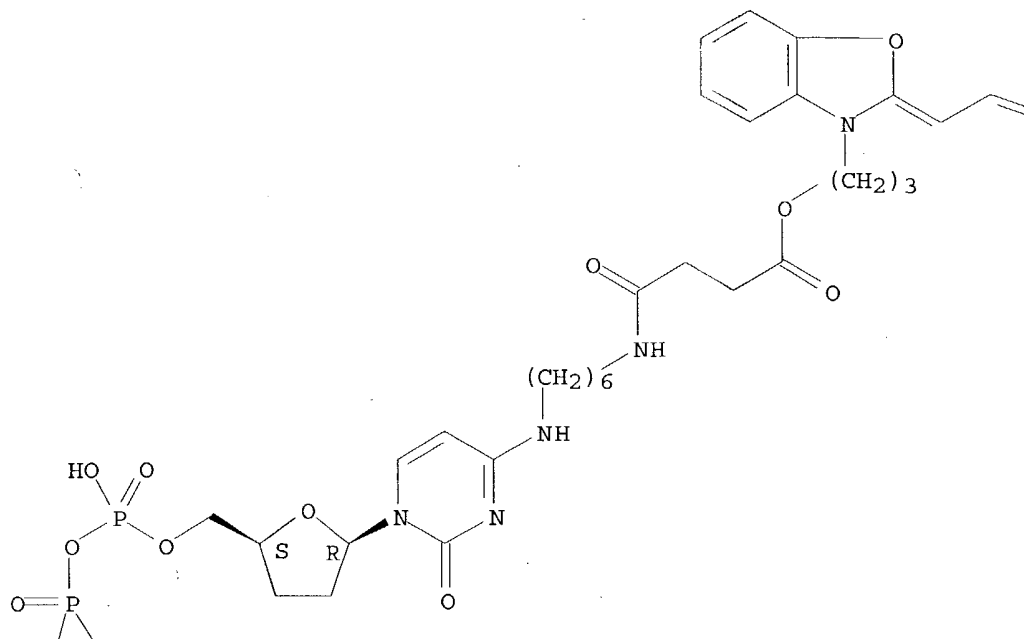


RN 218146-68-0 HCAPLUS

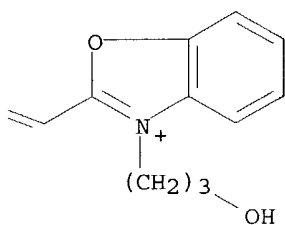
CN Benzoxazolium, 2-[3-[1-[3-[4-[[6-[[1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-4-pyrimidinyl]amino]hexyl]amino]-1,4-dioxobutoxy]propyl]-2(3H)-benzoxazolylidene]-1-propenyl]-1-(3-hydroxypropyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

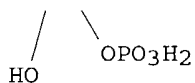
PAGE 1-A



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PAGE 2-A



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1996:572057 HCAPLUS
 DOCUMENT NUMBER: 125:214232
 TITLE: Stabilization of labeled nucleoside triphosphates with magnesium-binding compounds
 INVENTOR(S): Duthie, R. Scott; Brush, Charles K.; Stirchak, Eugene P.; Freeman, Mark E.; Burazin, Lawrence J.

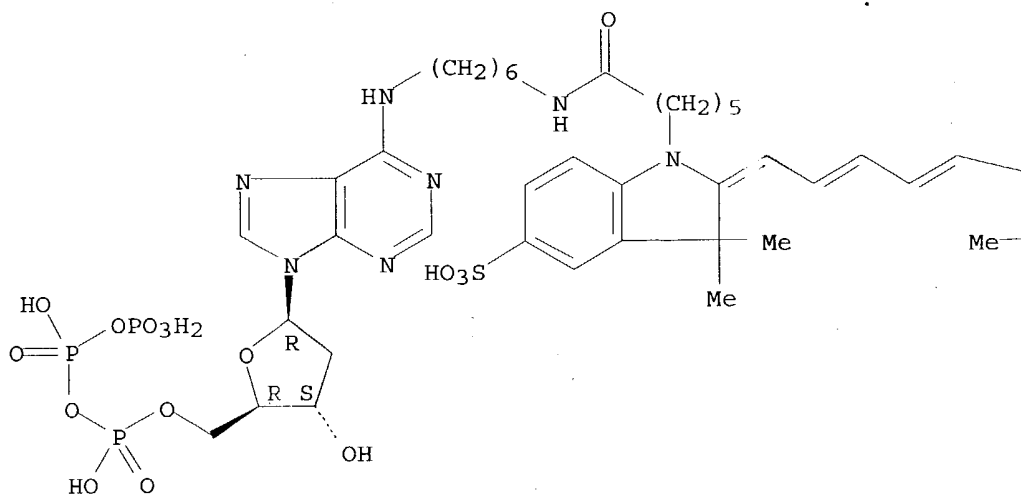
Searched by P. Ruppel

PATENT ASSIGNEE(S): Pharmacia Biotech Inc., USA
 SOURCE: PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

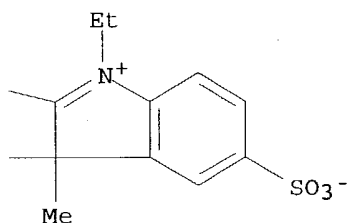
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9622298	A1	19960725	WO 1996-US274	19960105 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5808043	A	19980915	US 1995-374456	19950118 <--
CA 2210900	AA	19960725	CA 1996-2210900	19960105 <--
AU 9647497	A1	19960807	AU 1996-47497	19960105 <--
EP 804446	A1	19971105	EP 1996-903394	19960105 <--
EP 804446	B1	20030709		
R: DE, FR, GB, SE				
JP 10504974	T2	19980519	JP 1996-522303	19960105 <--
JP 3093275	B2	20001003		
PRIORITY APPLN. INFO.:			US 1995-374456	A 19950118 <--
			WO 1996-US274	W 19960105 <--
AB	A preparation of a labeled nucleotide comprising at least one compound having a Mg ²⁺ association constant between 1 + 10 ⁻¹¹ to 1 + 10 ⁻² , inclusive, is claimed. The compound is preferably selected from the group consisting of citrate, isocitrate, phosphate, EGTA, EDTA, and EDTA. The concentration of the compound is preferably at least 5 mM.			
IT	174817-56-2 RL: MSC (Miscellaneous) (stabilization of labeled nucleoside triphosphates with magnesium-binding compds.)			
RN	174817-56-2 HCAPLUS			
CN	3H-Indolium, 2-[5-[1-[6-[[6-[[9-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxylphosphinyl]-β-D-erythro-pentofuranosyl]-9H-purin-6-yl]amino]hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)			

Absolute stereochemistry.
 Double bond geometry unknown.

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PAGE 1-B



L68 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:360657 HCAPLUS
 DOCUMENT NUMBER: 123:156262
 TITLE: Silver halide photographic materials sensitized with specific dyes
 INVENTOR(S): Arai, Takeo; Kagawa, Nobuaki
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06301137	A2	19941028	JP 1993-86246	19930413 <--
JP 3243667	B2	20020107		
US 5453353	A	19950926	US 1994-225393	19940408 <--
PRIORITY APPLN. INFO.:			JP 1993-86246	A 19930413 <--

Searched by P. Ruppel

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

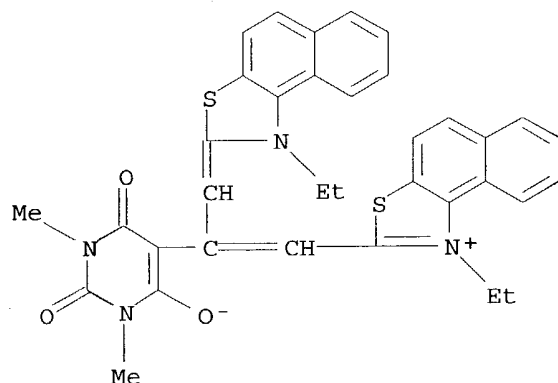
AB The title materials contain a combination of dye I and II and/or III [Y1-3 = NR, O, S, Se; W11 = O, S, Se; W21, W22 = S, Se; R1 = C \leq 10 aliphatic substituted with water-soluble groups; R, R2, R3 = aliphatic, aryl, heterocyclyl; \geq 2 groups chosen from R, R2, and R3 are substituted with water-soluble groups; R11, R12 = C \leq 10 aliphatic; \geq 1 of them is substituted with water-soluble groups; R21, R22 = C \leq 10 aliphatic; R23 = H, aliphatic, aryl, heterocyclyl; V1, V2 = H, alkyl, alkoxy, aryl; V1V2 may form a condensed ring with the azole ring; L1, L2 = (substituted) methine group; Z11, Z12 = nonmetal atoms forming a condensed carbocyclyl, condensed benzene ring, or condensed naphtho ring; Z21, Z22 = nonmetal atoms required to form a (substituted) condensed benzene ring or condensed naphtho ring; \geq 1 of them form a condensed naphtho ring; M1, M11, M21 = ion required to neutralize the total charge of the each mol.; n1, n11, n21 = number required to neutralize the charge of the each mol.]. The materials prevent residual color stain after development and high sensitivity in red color wavelength regions. Thus, a film was prepared by using a Ag(I, Br) emulsion layer containing IV and V.

IT 166888-74-0

RL: DEV (Device component use); USES (Uses)
(sensitizing dye; photog. materials containing merocyanine and monomethinecyanine and/or carbocyanine)

RN 166888-74-0 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-ethyl-2-[3-(1-ethylnaphtho[1,2-d]thiazol-2(1H)-ylidene)-2-(1,2,3,4-tetrahydro-6-hydroxy-1,3-dimethyl-2,4-dioxo-5-pyrimidinyl)-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)



L68 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1993:459580 HCAPLUS
 DOCUMENT NUMBER: 119:59580
 TITLE: Silver halide photographic materials
 INVENTOR(S): Kagawa, Nobuaki; Tanaka, Shinri
 PATENT ASSIGNEE(S): Konica Corp., Japan
 SOURCE: Eur. Pat. Appl., 34 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent

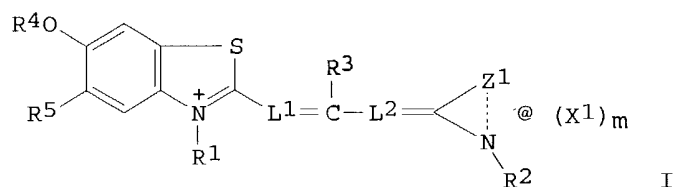
Searched by P. Ruppel

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 521632	A1	19930107	EP 1992-305548	19920617 <--
R: DE, FR, GB, NL				
JP 05257221	A2	19931008	JP 1992-175998	19920611 <--
JP 3219211	B2	20011015		
US 5302506	A	19940412	US 1992-901130	19920619 <--
PRIORITY APPLN. INFO.:			JP 1991-181980	A 19910626 <--
OTHER SOURCE(S):			MARPAT 119:59580	
GI				



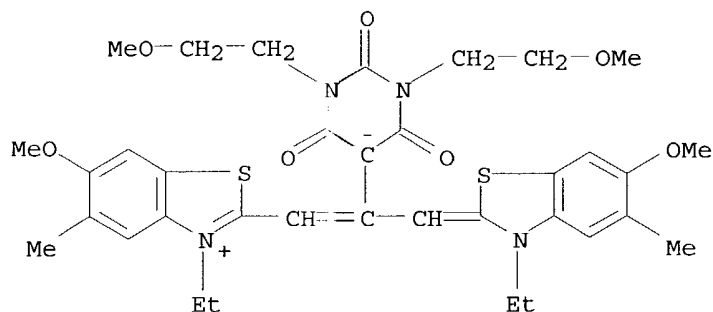
AB In the title materials ≥ 1 photosensitive layer is spectrally sensitized with a sensitizing dye I [R1, R2 = alkyl, alkenyl; R3 = alkyl, aryl, heterocyclyl, H; R4, R5 = alkyl; Z1 = atoms necessary to form 5-membered monocyclic or nitrogenous heterocyclic ring; L1, L2 = methine which may be combined with R1 or R2, resp. to form ring; X1 = ion to balance the elec. charge in the mol.; m = number of ions necessary to balance the charge]. The photog. materials have enhanced spectral sensitivity in the red wavelength region while causing less color contamination.

IT 148647-72-7

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. sensitizer, red, for reduced color contamination)

RN 148647-72-7 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[3-(3-ethyl-6-methoxy-5-methyl-2(3H)-benzothiazolylidene)-2-[hexahydro-1,3-bis(2-methoxyethyl)-2,4,6-trioxo-5-pyrimidinyl]-1-propenyl]-6-methoxy-5-methyl-, inner salt (9CI) (CA INDEX NAME)



=>

Searched by P. Ruppel

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FILE 'HOME' ENTERED AT 13:49:42 ON 26 OCT 2004

=>

=> b hcaplus

FILE 'HCAPLUS' ENTERED AT 13:13:14 ON 26 OCT 2004

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FILE COVERS 1907 - 26 Oct 2004 VOL 141 ISS 18

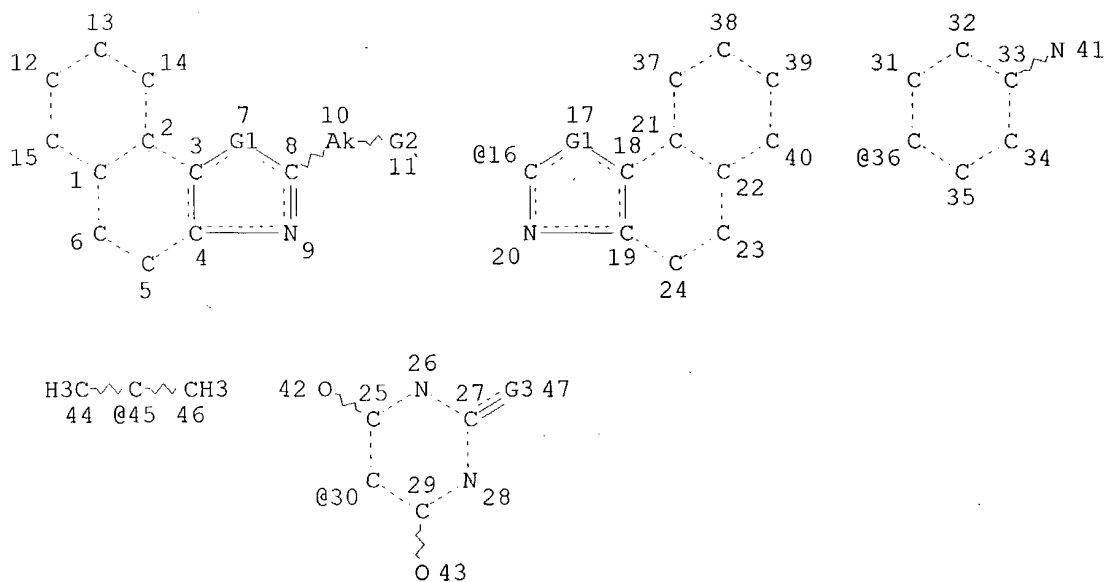
FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

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L1 STR



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VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

Searched by P. Ruppel

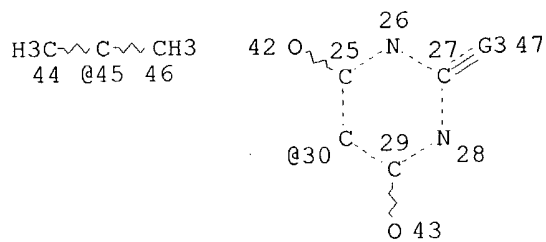
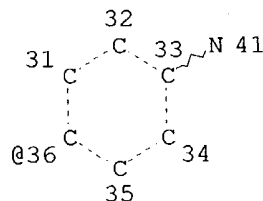
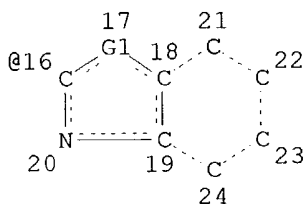
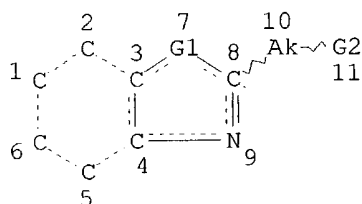
ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L2 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

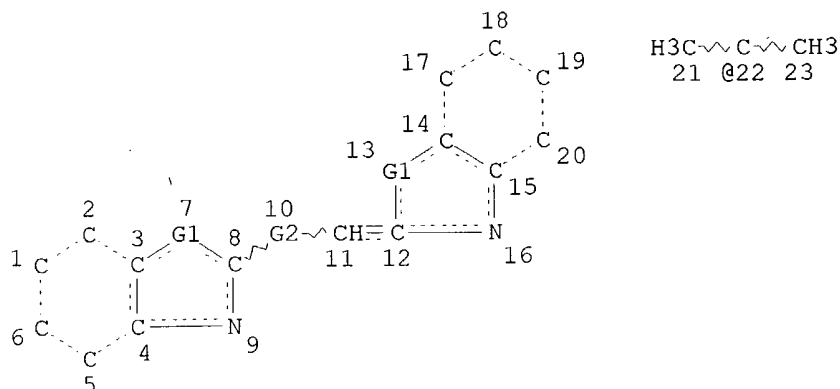
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L4 (19932)SEA FILE=REGISTRY SSS FUL L2

L5 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L3 OR L4) AND 1/NC

L6 STR



VAR G1=S/O/22
 REP G2=(2-8) C
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
 L7 (40)SEA FILE=REGISTRY SUB=L5 SSS FUL L6
 L8 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

=> d ibib abs hitstr l8 1-5

L8 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1997:664526 HCAPLUS
 DOCUMENT NUMBER: 127:364136
 TITLE: Silver halide photographic material using novel
 methine dye
 INVENTOR(S): Hioki, Takanori; Suzumoto, Takeshi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09265144	A2	19971007	JP 1996-74021	19960328
JP 3522962	B2	20040426		
PRIORITY APPLN. INFO.: GI			JP 1996-74021	19960328

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

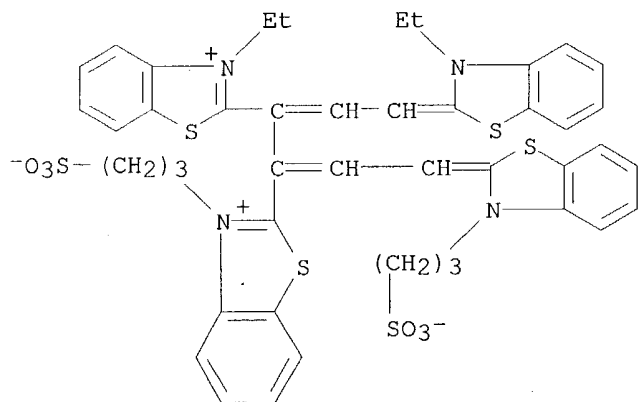
AB The title material contains ≥ 1 compound of the general formula (MET1)Q1(MET2) [I; (MET1), (MET2) = methine dye; Q1 = divalent linking group or single bond, the group links to the methine chain of the dye]. I may be II (L8-19 = methine group; p3-6 = 0 or 1; Z3-6 atoms required to form a 5 or 6-membered N-containing heterocycle; R3-6 = alkyl; Q2 = divalent linking group or single bond; M2 = counter ion; m2 = 0-16). The material shows good light absorption and sensitivity. Thus, a photog. film was prepared by using a Ag(Br, I) emulsion containing III.

IT 198562-75-3

RL: DEV (Device component use); USES (Uses)
(methine dye photog. sensitizer)

RN 198562-75-3 HCAPLUS

CN Benzothiazolium, 2-[2-(3-ethylbenzothiazolium-2-yl)-4-(3-ethyl-2(3H)-benzothiazolylidene)-1-[[3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]ethylidene]-2-butenyl]-3-(3-sulfopropyl)-, bis(inner salt) (9CI) (CA INDEX NAME)



L8 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:580212 HCAPLUS

DOCUMENT NUMBER: 109:180212

TITLE: Physical-chemical properties of organized sensitizer molecules

AUTHOR(S): Steiger, R.; Zbinden, F.

CORPORATE SOURCE: Ilford A.-G., Fribourg, 1700, Switz.

SOURCE: Journal of Imaging Science (1988), 32(2), 64-81

CODEN: JISCEJ; ISSN: 8750-9237

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mol. organization was studied using the Langmuir-Blodgett technique, self-organization by adsorption at 2-dimensional fatty acid matrixes, at the air-water interface, and micellar systems. Cyanine mols. were organized into J-aggregates, and the parameters which influence dye aggregation are discussed by comparing model systems with emulsion crystals of Ag halides. Applications of organized sensitizer systems for the study of electron- and energy transfer and related mechanisms are shown.

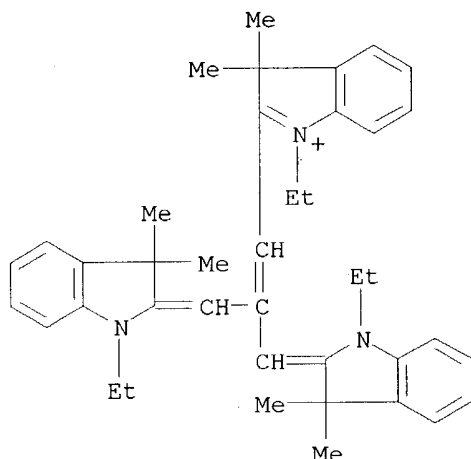
IT 75069-03-3

RL: USES (Uses)

(electron acceptor, in study of phys.-chemical properties of organized sensitizer mols.)

RN 75069-03-3 HCAPLUS

CN 3H-Indolium, 1-ethyl-2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-2-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)methyl]-1-propenyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)



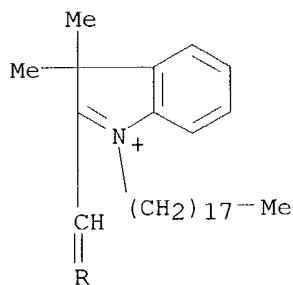
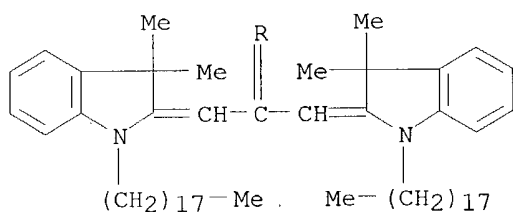
IT 115781-38-9

RL: USES (Uses)

(in study of phys. chemical properties of organized sensitizer mols., on silver bromide crystal)

RN 115781-38-9 HCAPLUS

CN 3H-Indolium, 2-[3-(1,3-dihydro-3,3-dimethyl-1-octadecyl-2H-indol-2-ylidene)-2-[(1,3-dihydro-3,3-dimethyl-1-octadecyl-2H-indol-2-ylidene)methyl]-1-propenyl]-3,3-dimethyl-1-octadecyl- (9CI) (CA INDEX NAME)



L8 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:65879 HCAPLUS

DOCUMENT NUMBER: 108:65879

TITLE: Contribution to the discussion of the mechanism of spectral sensitization of silver halide

AUTHOR(S): Siegel, J.; Fassler, D.; Friedrich, M.; Von Grossmann, J.; Kempka, U.; Pietsch, H.

CORPORATE SOURCE: Sekt. Chem., Friedrich-Schiller-Univ., Jena, Ger. Dem. Rep.

SOURCE: Journal of Photographic Science (1987), 35(3), 73-82
CODEN: JPTSAB; ISSN: 0022-3638

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Radicals identified as reduced dye mols. were ESR spectroscopically detected after irradiation of spectrally sensitized Ag halide. A relation exists between the occurrence of these radicals and the photog. effect of the dyes. On this basis a mechanism of spectral sensitization is discussed in which also such phenomena as spectral bleaching, blue desensitization and environmental influences can be easily included.

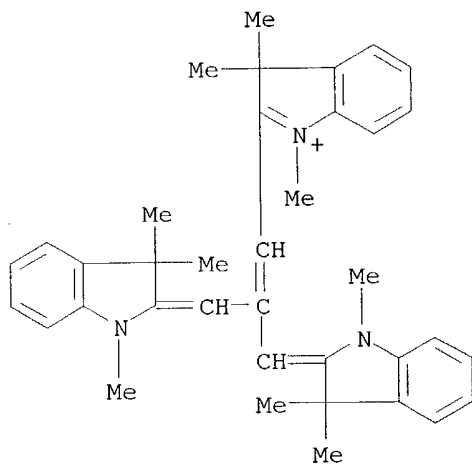
IT 47818-34-8

RL: USES (Uses)

(spectral sensitization of photog. silver halide emulsion by, mechanism of)

RN 47818-34-8 HCAPLUS

CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-2-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)methyl]-1-propenyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1982:13561 HCAPLUS

DOCUMENT NUMBER: 96:13561

TITLE: Chemical and photographic properties of symmetrical trinuclear cyanine dyes

AUTHOR(S): Steiger, R.; Reber, J. F.

CORPORATE SOURCE: Cent. Res. Lab., Ciba-Geigy, Fribourg, 1700, Switz.

SOURCE: Photographic Science and Engineering (1981), 25(4),

127-38

CODEN: PSENAC; ISSN: 0031-8760

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Some phys.-chemical properties of sym. trinuclear cyanines are described and related to their photog. behavior in neg. and direct pos. AgBr emulsions. Stable radical formation by one-electron reduction of these dyes is confirmed by ESR spectroscopy. Such radicals are also obtained by using conduction band electrons from excited Ag halides as reducing agents. As a consequence of the stable radical formation photoelectrons disappear from the equilibrium with their associated photoholes. The latter may then be used

as

oxidants for Ag clusters at the surface of prefogged Ag halide microcrystals. Direct pos. emulsions acting by surface fog oxidation are obtained by using sym. trinuclear cyanines as electron acceptors. In neg. AgBr emulsions, sym. trinuclear cyanines are very efficient electron acceptors, leading to strong desensitization.

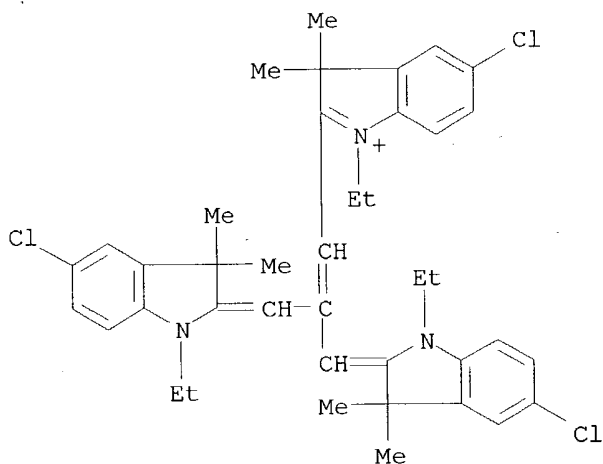
IT 77553-31-2

RL: USES (Uses)

(chemical and photog. properties of)

RN 77553-31-2 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[3-(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-2-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)methyl]-1-propenyl]-1-ethyl-3,3-dimethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1980:559169 HCAPLUS

DOCUMENT NUMBER: 93:159169

TITLE: Direct-positive photographic material

INVENTOR(S): Steiger, Rolf; Reber, Jean Francois

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Ger. Offen., 72 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

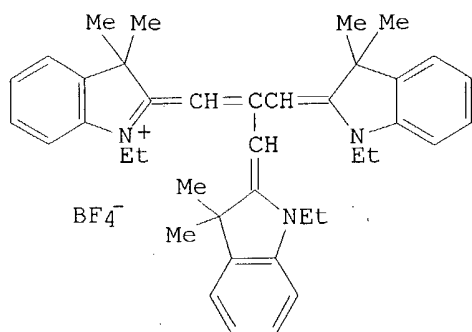
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2935333	A1	19800320	DE 1979-2935333	19790831
DE 2935333	C2	19910529		
CH 637488	A	19830729	CH 1978-9254	19780901
CH 644212	A	19840713	CH 1979-3190	19790405
FR 2454122	A1	19801107	FR 1979-21687	19790829
FR 2454122	B1	19840224		
BE 878547	A1	19800229	BE 1979-196975	19790831
JP 55062442	A2	19800510	JP 1979-111061	19790901
GB 2033595	A	19800521	GB 1979-30434	19790903
GB 2033595	B2	19830209		
US 4376817	A	19830315	US 1981-287323	19810727
PRIORITY APPLN. INFO.:			CH 1978-9254	19780901
			CH 1979-3189	19790405
			CH 1979-3190	19790405
			US 1979-70476	19790828

GI



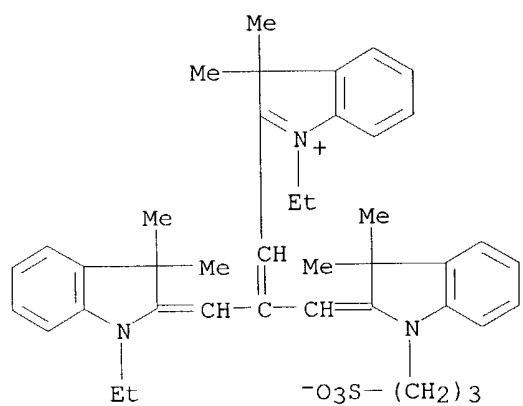
AB Direct-pos. photog. materials having good sensitivity, especially in the green and red spectral regions, contain a fogged gelatin-Ag halide emulsion sensitized with sym. trinuclear cyanine dyes. These dyes are compatible with other sensitizers, and only slightly color the emulsion. Photog. materials containing these dyes give images with a high Dmax and a low Dmin. Thus, to a direct-pos. gelatin-Ag(Br,I) emulsion (1.6 mol % I- and 0.21 μ m crystals) fogged with Na HCHO-sulfoxylate and H₂AuCl₄ was added I 730 mg/mol Ag(Br,I). This emulsion was then coated on a polyester support at Ag 2.4 and gelatin 3.4/m². The dried material was then sensitometrically exposed with W light through a step wedge and developed to a sensitivity (S₅₀ where S₅₀ = 3-log E where E is measured in lx-S) of 1.92, a γ of 2.6, a Dmax of 1.64, and a Dmin of 0.09.

IT 75069-15-7

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. spectral sensitizer, for direct-pos. emulsions)

RN 75069-15-7 HCAPLUS

CN 3H-Indolium, 2-[3-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-2-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)methyl]-1-propenyl]-1-ethyl-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)



=> b home

FILE 'HOME' ENTERED AT 13:14:29 ON 26 OCT 2004

=>

=> b reg

FILE 'REGISTRY' ENTERED AT 13:19:09 ON 26 OCT 2004

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STRUCTURE FILE UPDATES: 25 OCT 2004 HIGHEST RN 769101-30-6

DICTIONARY FILE UPDATES: 25 OCT 2004 HIGHEST RN 769101-30-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

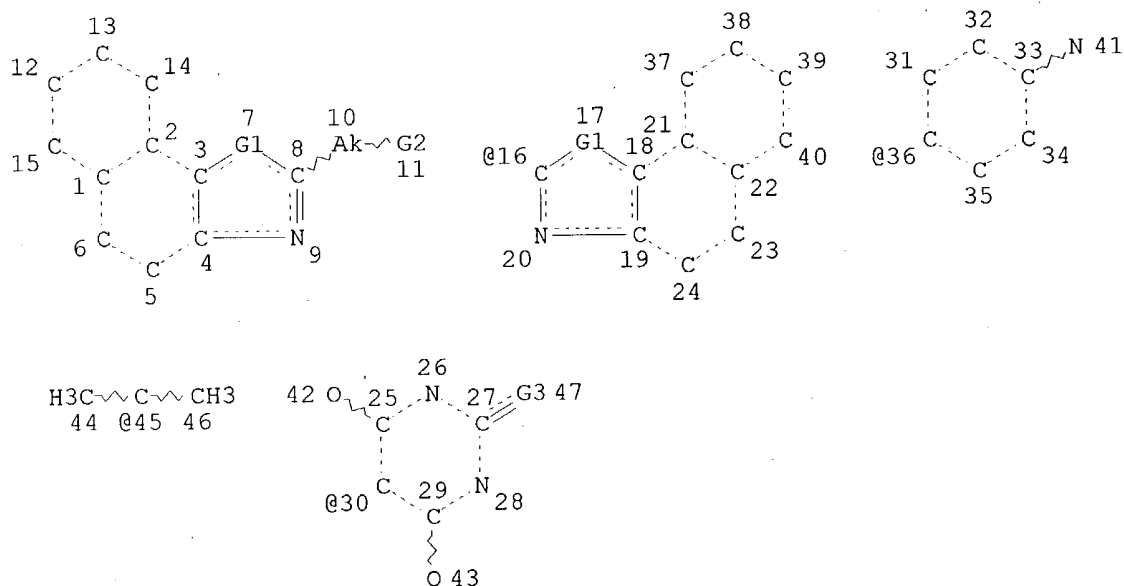
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> => d que 142

L36 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

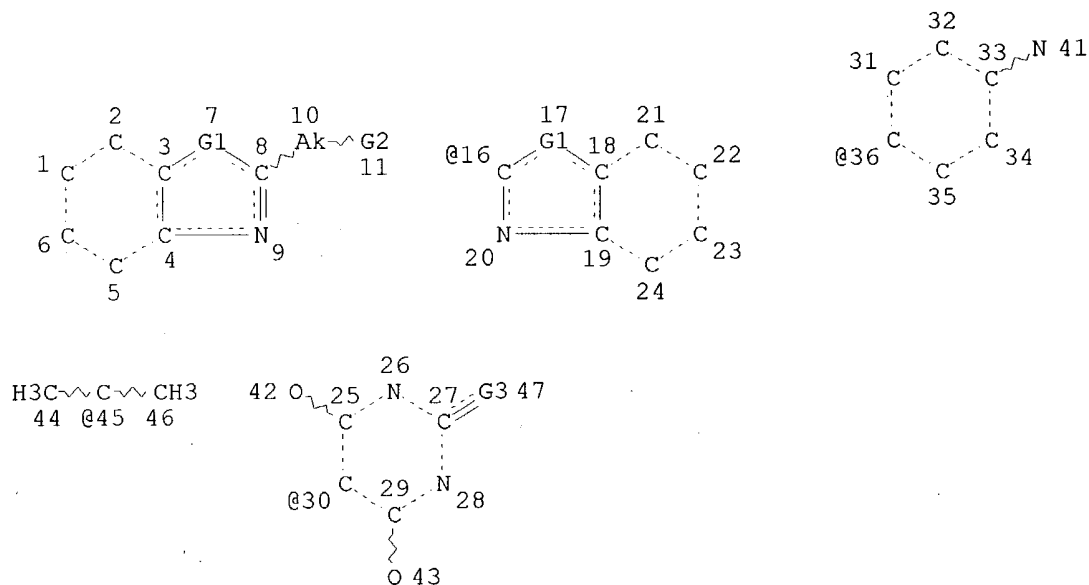
Searched by P. Ruppel

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L37 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

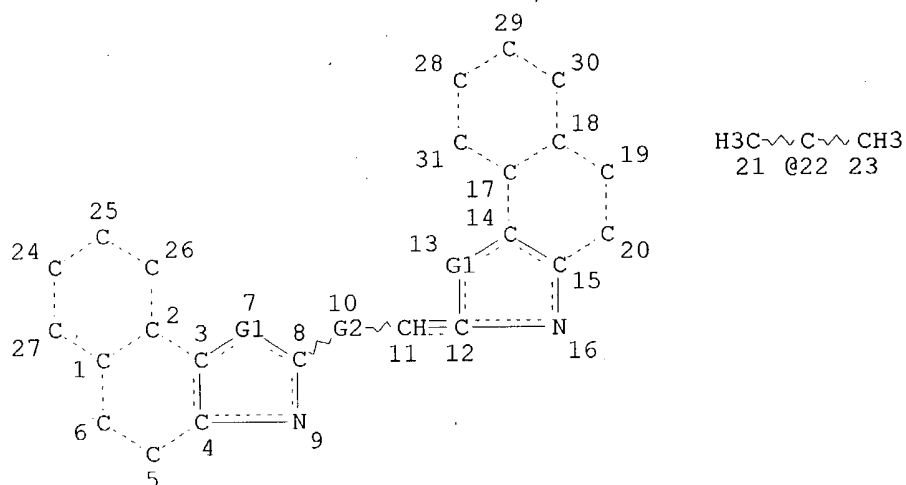
STEREO ATTRIBUTES: NONE

L38 (1427)SEA FILE=REGISTRY SSS FUL L36

L39 (19932)SEA FILE=REGISTRY SSS FUL L37

L40 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L38 OR L39) AND 1/NC

L41 STR



VAR G1=S/O/22
 REP G2=(2-8) C
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE
 L42 0 SEA FILE=REGISTRY SUB=L40 SSS FUL L41

=> b home
 FILE 'HOME' ENTERED AT 13:20:04 ON 26 OCT 2004

=>

=> b hcaplus

FILE 'HCAPLUS' ENTERED AT 13:14:53 ON 26 OCT 2004

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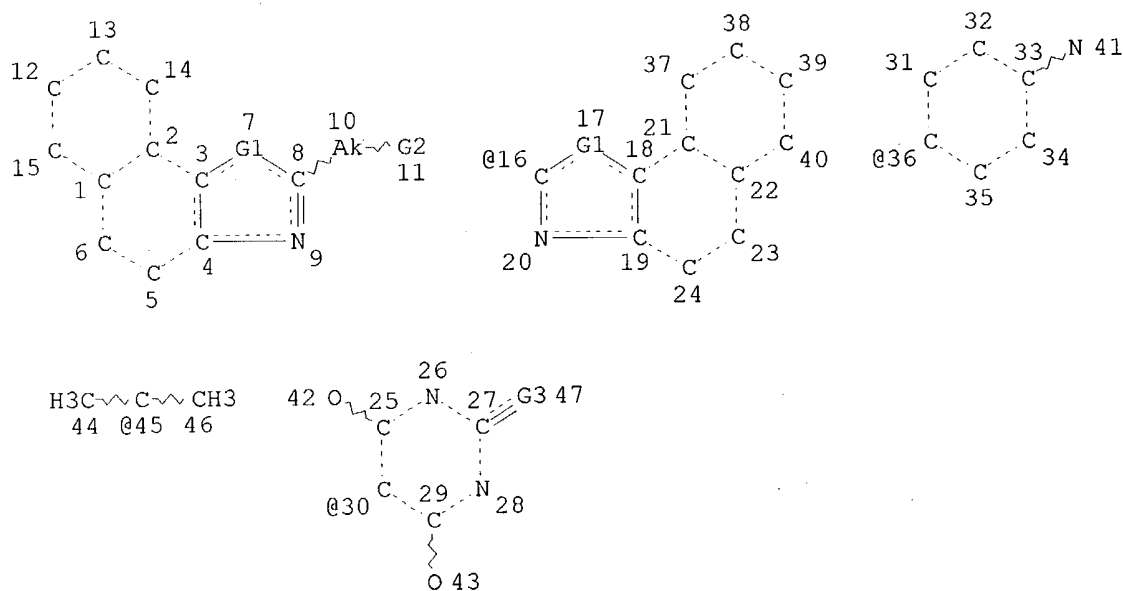
FILE COVERS 1907 - 26 Oct 2004 VOL 141 ISS 18
FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que 116

L9 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

Searched by P. Ruppel

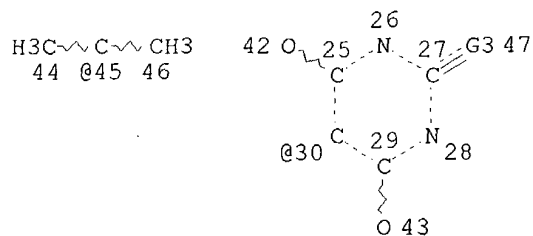
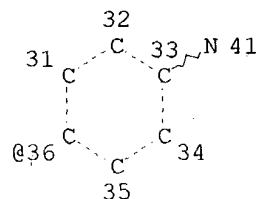
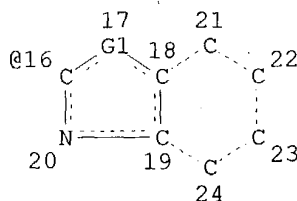
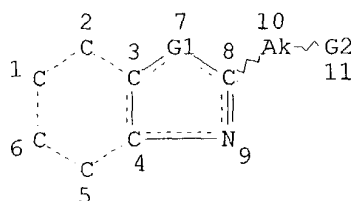
ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L10 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

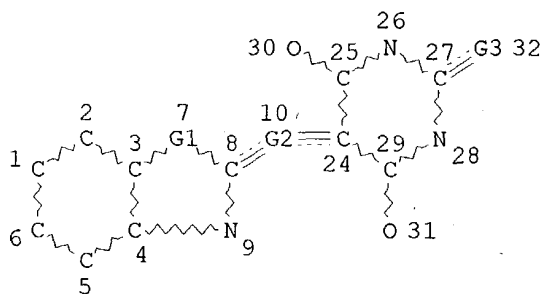
L11 (1427)SEA FILE=REGISTRY SSS FUL L9

L12 (19932)SEA FILE=REGISTRY SSS FUL L10

L13 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L11 OR L12) AND 1/NC

L14 STR

H3C~C~CH3
21 @22 23



VAR G1=S/O/22
REP G2=(2-8) C
VAR G3=O/S
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 30
CONNECT IS E1 RC AT 31
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L15 (2)SEA FILE=REGISTRY SUB=L13 SSS FUL L14
L16 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L15

=> d ibib abs hitstr l16

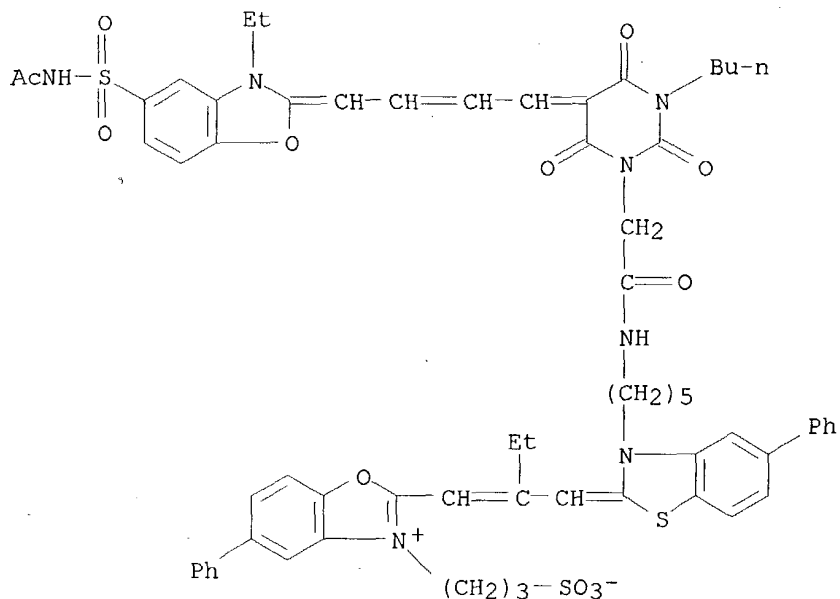
L16 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:628316 HCAPLUS
DOCUMENT NUMBER: 139:171224
TITLE: Silver halide photographic material containing sensitizing dye
INVENTOR(S): Kobayashi, Suguru; Hioki, Takanori
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003228148	A2	20030815	JP 2002-29593	20020206
PRIORITY APPLN. INFO.:			JP 2002-29593	20020206
AB The material contains ≥ 1 D1r2(LaqaD2q1)r1.M1m1 (D1-2 = chromophore; La = linking group; q1, r1, r2 = 1-100; qa = 1-4; M1 = counter ion; m1 = number for neutralizing the mol; the mol. has proton-releasing group with pKa = 2-10). The material shows high sensitivity.				
IT 573984-51-7				

RL: TEM (Technical or engineered material use); USES (Uses)
 (silver halide photog. material containing sensitizing dye)

RN 573984-51-7 HCAPLUS

CN Benzoxazolium, 2-[2-[[3-[5-[[[5-[4-[5-[(acetylamino)sulfonyl]-3-ethyl-2(3H)-benzoxazolylidene]-2-butenylidene]-3-butyltetrahydro-2,4,6-trioxo-1(2H)-pyrimidinyl]acetyl]amino]pentyl]-5-phenyl-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-5-phenyl-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



=> b home

FILE 'HOME' ENTERED AT 13:15:13 ON 26 OCT 2004

=>

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=> b hcaplus

FILE 'HCAPLUS' ENTERED AT 13:15:28 ON 26 OCT 2004

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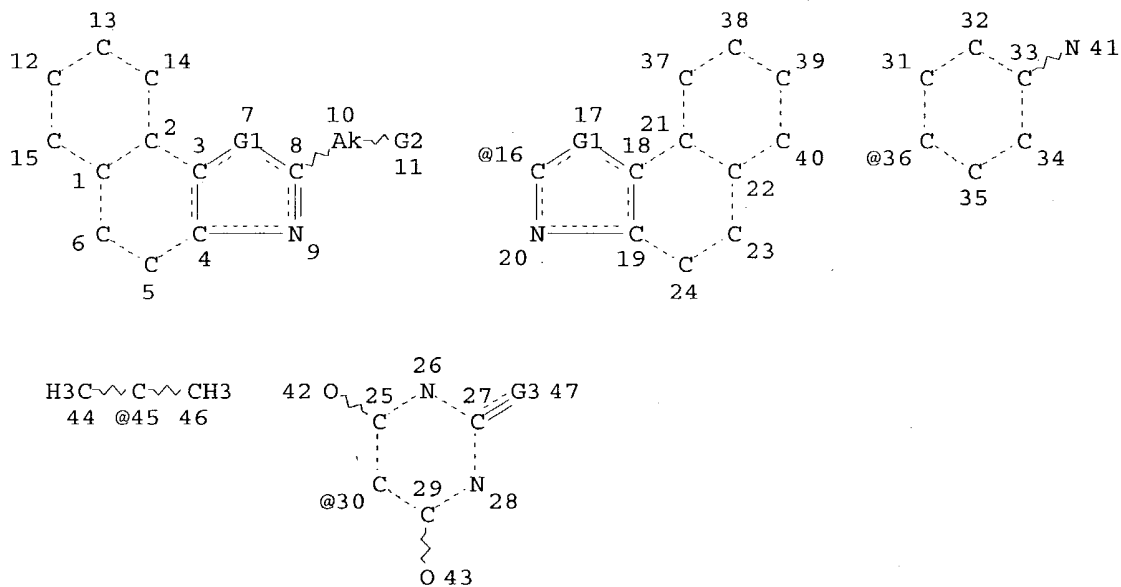
FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que 125

L17 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

Searched by P. Ruppel

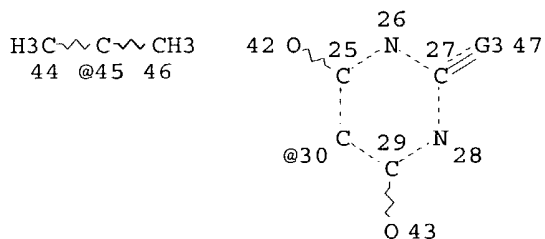
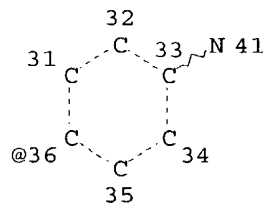
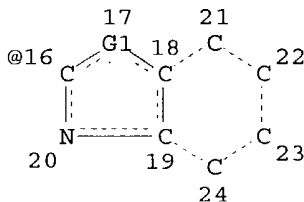
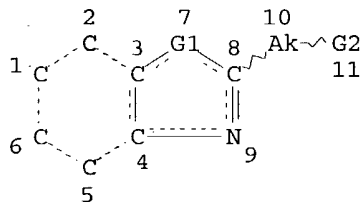
ECOUNT IS M2-X9 C AT 10 .

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L18 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

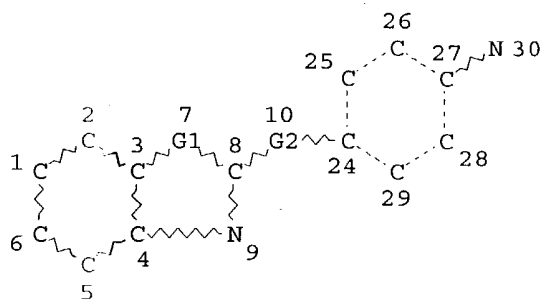
L19 (1427)SEA FILE=REGISTRY SSS FUL L17

L20 (19932)SEA FILE=REGISTRY SSS FUL L18

L21 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L19 OR L20) AND 1/NC

L22 STR

H3C~C~CH3
21 @22 23



VAR G1=S/O/22
REP G2=(2-8) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L23 (1724)SEA FILE=REGISTRY SUB=L21 SSS FUL L22
L24 (180)SEA FILE=HCAPLUS ABB=ON PLU=ON L23/P
L25 89 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 AND (P/DT AND (PY<=2000
OR PRY<=2000 OR AY<=2000))

=> d ibib abs fhitr 125 1 3 6 9 12 15 18 21 24 27 30 33 36 39 42 45 48 51 54 57
60 63 66 69 72 75 78 81 84 87 89

L25 ANSWER 1 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:169618 HCAPLUS
DOCUMENT NUMBER: 136:239114
TITLE: Photopolymerizable composition suitable for
laser-direct-imaging lithographic plate precursor
INVENTOR(S): Kunita, Kazuto
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 109 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002069109	A2	20020308	JP 2000-265412	20000901 <--
PRIORITY APPLN. INFO.:			JP 2000-265412	20000901 <--

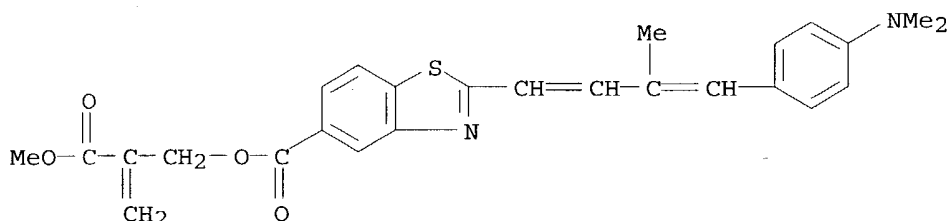
AB The title composition contains a photosensitizing dye, a photopolymn.
initiator, and photopolymerizable compds. having a double bond, wherein
the photosensitizing dye has structure CH2=C(COX2)(CRaRbX1) (X1-2 = halo,
hetero atom; Ra-b = H, halo, cyano, organic residual group). The composition,
which contains the photosensitizing dye, shows the improvement on the
sensitivity and the storageability.

IT 403509-41-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material)

use); PREP (Preparation); USES (Uses)
 (photosensitizing dye in photopolymerizable composition)

RN 403509-41-1 HCAPLUS

CN 5-Benzothiazolecarboxylic acid, 2-[4-[4-(dimethylamino)phenyl]-3-methyl-1,3-butadienyl]-, 2-(methoxycarbonyl)-2-propenyl ester (9CI) (CA INDEX NAME)



L25 ANSWER 3 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2001:873243 HCAPLUS
 DOCUMENT NUMBER: 136:29027
 TITLE: Novel bisstyrylbenzobisoxazole derivative, its synthesis, and green-emitting organic electroluminescent device containing the same
 INVENTOR(S): Matsubara, Hirotomo; Kawachi, Junji; Nakahara, Yoshinori
 PATENT ASSIGNEE(S): Daiwa Kasei Kogyo K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001335580	A2	20011204	JP 2000-309448	20001010 <--
PRIORITY APPLN. INFO.:			JP 2000-77654	A 20000321 <--
OTHER SOURCE(S):	MARPAT 136:29027			

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The bisstyrylbenzobisoxazole derivative is that represented as I (R1-R14, R'1-R'14 = H, halogen, OH, alkyl, alkoxy, aryl, dialkylamino, diarylamino). The derivative I is manufactured by condensation of 2,6-dimethylbenzo[1,2-d:5,4-d']bisoxazole and N,N-diphenylaminobenzaldehyde derivs. The electroluminescent device involves a layer containing I between a pair of electrodes.

IT 377741-36-1P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

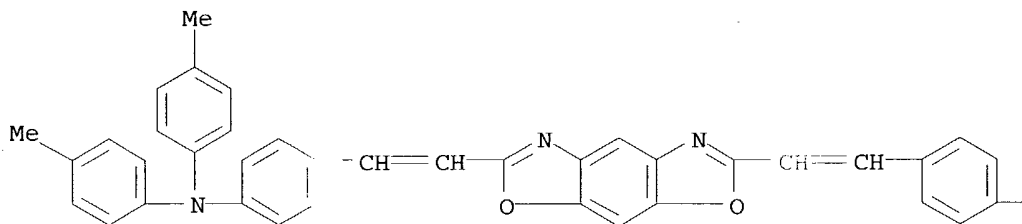
(NSnovel bisstyrylbenzobisoxazole derivative, its synthesis, and green-emitting organic electroluminescent device containing the same)

RN 377741-36-1 HCAPLUS

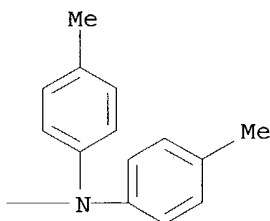
CN Benzenamine, 4,4'-(benzo[1,2-d:5,4-d']bisoxazole-2,6-diyl)-2,1-

ethenediyl)bis(N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

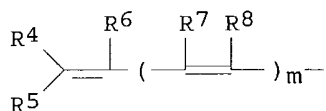


PAGE 1-B



L25 ANSWER 6 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:887758 HCAPLUS
 DOCUMENT NUMBER: 134:63640
 TITLE: Luminescent materials and amine compounds
 INVENTOR(S): Arai, Kazumi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000351965	A2	20001219	JP 2000-99091	20000331 <--
US 6537687	B1	20030325	US 2000-540905	20000331 <--
US 2003170494	A1	20030911	US 2003-347737	20030122 <--
PRIORITY APPLN. INFO.:			JP 1999-94347	A 19990331 <--
			US 2000-540905	A3 20000331 <--
OTHER SOURCE(S):		MARPAT 134:63640		
GI				



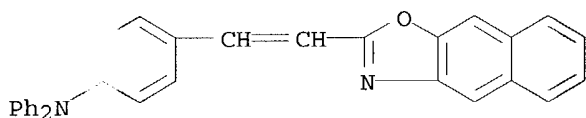
I

AB The invention refers to a luminescent material containing the amine NR₁R₂R₃ [R₁-3 = aryl, hetero, hydrocarbon; two of the groups may be (un)substituted aryl- or hetero-cyclic rings; and at least one must contain I {R₄ = heterocyclic ring or electrophilic, R₅ = H, or electrophilic; R₆-7 may join with each other or with R₁-3 to form a ring; m = 0, 1, 2; wherein if the amine contains only one I, R₄, 5 may not both be cyano groups; and if R₅ = H, R₄ = aromatic heterocyclic with 3 - 7 rings}].

IT 313680-41-0P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (luminescent materials and amine compds.)

RN 313680-41-0 HCAPLUS

CN Benzenamine, 4-(2-naphth[2,3-d]oxazol-2-ylethenyl)-N,N-diphenyl- (9CI)
 (CA INDEX NAME)



L25 ANSWER 9 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:456787 HCAPLUS

DOCUMENT NUMBER: 133:96721

TITLE: Photographic element containing high dye-yield couplers

INVENTOR(S): Mooberry, Jared B.; Bonser, Steven M.; Dockery, Kevin P.; Hoke, David; Kim, Chang-Kyu; Seifert, James J.; Southby, David T.; Wu, Zheng Z.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: Eur. Pat. Appl., 70 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1016916	A1	20000705	EP 1999-204443	19991221 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6132944	A	20001017	US 1999-433256	19991104 <--
CN 1258861	A	20000705	CN 1999-127518	19991230 <--
JP 2000206655	A2	20000728	JP 2000-5025	20000104 <--
PRIORITY APPLN. INFO.:			US 1998-224899	A 19981231 <--

AB Disclosed is a photog. element containing a light-sensitive silver halide emulsion layer having associated therewith a coupler (COUP)-O-C(=X)-(DYE) wherein COUP is a coupler parent group capable of reacting with an oxidized developer to form a first dye and is bonded at a coupling position to the group and wherein X = O, NSO₂R; R = alkyl, aryl; DYE = releasable second dye that after releasing the same color as the first dye and linked to OC = X by a moiety of the DYE having -N(R₂)-, R₂ = substituent. Provided there is contained in the coupler of (COUP)-O-C(=X)-(DYE) at least one group of -Im-sol (L = divalent linking group; m = 0, 1; Sol = group containing an acidic hydrogen selected from the group consisting of -ArOH, -NHSO₂R₁ and -SO₂NHR₁; Ar = aromatic group; R₁ =

substituent). Provided further that the pKa of an acidic hydrogen of Sol is less than 8.8.

IT 280111-79-7P

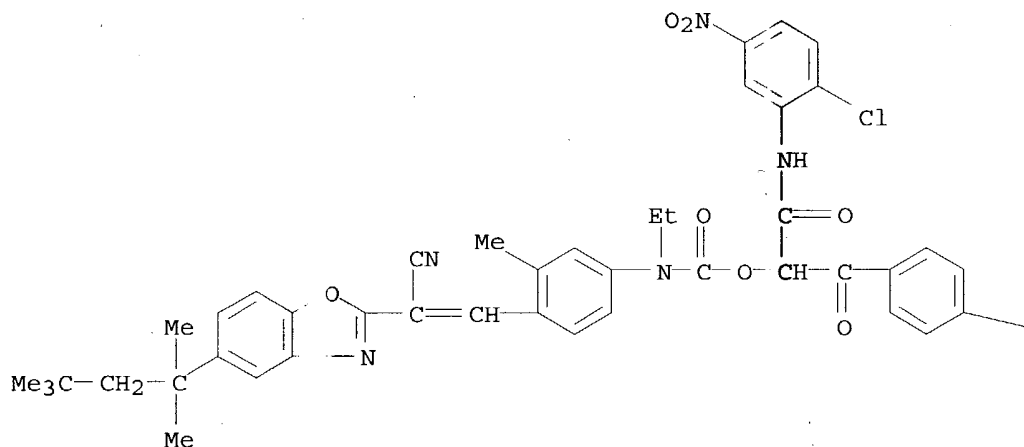
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(high dye-yield coupler)

RN 280111-79-7 HCAPLUS

CN Carbamic acid, [4-[2-cyano-2-[5-(1,1,3,3-tetramethylbutyl)-2-benzoxazolyl]ethenyl]-3-methylphenyl]ethyl-, 1-[[2-chloro-5-nitrophenyl]amino]carbonyl]-2-(4-methoxyphenyl)-2-oxoethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

OMe

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 12 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:98551 HCAPLUS

DOCUMENT NUMBER: 132:151818

TITLE: Preparation of benzoxazoles, benzothiazoles and benzimidazoles as fungicides, insecticides, acaricides, molluscicides, and nematocides.

Searched by P. Ruppel

INVENTOR(S): Mathews, Christopher John; Barnett, Susan Patricia;
 Smith, Stephen Christopher; Barnes, Nigel John;
 Whittingham, William Guy; Williams, John; Pilkington,
 Brian Leslie; Clarke, Eric Daniel; Whittle, Alan John;
 Hughes, David John; Armstrong, Sarah; Liner, Russell;
 Urch, Christopher John; Crowley, Patrick Jelf; Heaney,
 Stephen Paul; Fraser, Torquil Eoghan Macleod

PATENT ASSIGNEE(S): Zeneca Limited, UK

SOURCE: PCT Int. Appl., 304 pp.
 CODEN: PIXXD2

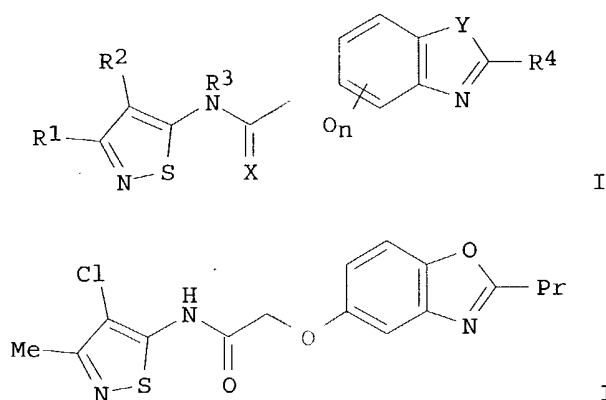
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006566	A1	20000210	WO 1999-GB2377	19990721 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2338048	AA	20000210	CA 1999-2338048	19990721 <--
AU 9950550	A1	20000221	AU 1999-50550	19990721 <--
AU 755291	B2	20021212		
EP 1100798	A1	20010523	EP 1999-934928	19990721 <--
EP 1100798	B1	20020918		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9912616	A	20020213	BR 1999-12616	19990721 <--
JP 2002521480	T2	20020716	JP 2000-562368	19990721 <--
AT 224390	E	20021015	AT 1999-934928	19990721 <--
PT 1100798	T	20030228	PT 1999-934928	19990721 <--
ES 2184482	T3	20030401	ES 1999-934928	19990721 <--
NZ 509431	A	20030829	NZ 1999-509431	19990721 <--
EG 22178	A	20021031	EG 1999-921	19990727 <--
AP 969	A	20010529	AP 1999-1616	19990729 <--
W: ZM				
TW 522151	B	20030301	TW 1999-88112899	19990729 <--
US 2002049142	A1	20020425	US 2001-767880	20010123 <--
US 6544989	B2	20030408		
PRIORITY APPLN. INFO.:			GB 1998-16654	A 19980730 <--
			WO 1999-GB2377	N 19990721 <--
OTHER SOURCE(S):			MARPAT 132:151818	
GI				



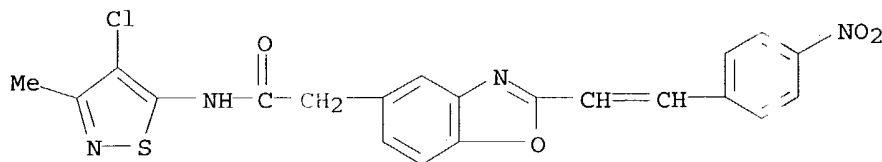
AB Title compds. (I; X = O, S; n = 0, 1; Y = O, S, NR7; R1 = H, halo, alkyl, haloalkyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, cycloalkyl, alkoxyalkyl, SF5; R2 = H, halo, alkyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, haloalkylsulfinyl, alkylsulfonyl, haloalkylsulfonyl, haloalkyl, cyano, nitro, CHO, CH:NOR5, alkylcarbonyl, alkoxy carbonyl, SF5; R1R2 = 5-6 membered (unsatd.) carbocyclic ring; R3 = H, alkyl, cyanoalkyl, alkenyl, alkynyl, etc.; R4 = H, halo, cyano, alkyl, haloalkyl, cyanoalkyl, alkenyl, alkynyl, etc.; R5 = H, alkyl, (substituted) Ph, phenylalkyl; R7 = H, cyano, alkyl, haloalkyl, cyanoalkyl, alkenyl, alkynyl, cycloalkyl, etc.), were prepared. Thus, a mixture of Me 3-amino-4-hydroxyphenylacetate (preparation given), pyridinium p-toluenesulfonate, and Et3N in xylene was treated dropwise with n-butyryl chloride followed by 17 h reflux to give Me (2-propyl-5-benzoxazolyl)acetate. The latter was refluxed with KOH in MeOH to give (2-propyl-5-benzoxazolyl)acetic acid, which in CH2Cl2 was treated with cat. DMF and (COCl)2 to give a residue which in xylene was refluxed with 5-amino-4-chloro-3-methylisothiazole to give title compound (II). II at 12.5 ppm gave 80-100% kill of *Myzus persicae*, *Musca domestica*, etc.

IT 257631-58-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of benzoxazoles, benzothiazoles and benzimidazoles as fungicides, insecticides, acaricides, molluscicides, and nematocides)

RN 257631-58-6 HCAPLUS

CN 5-Benzoxazoleacetamide, N-(4-chloro-3-methyl-5-isothiazolyl)-2-[2-(4-nitrophenyl)ethenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 15 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:498622 HCAPLUS

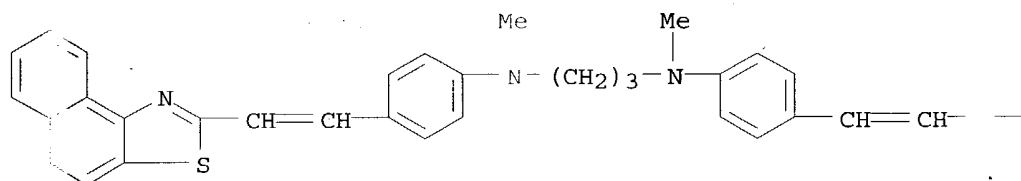
Searched by P. Ruppel

DOCUMENT NUMBER: 131:177297
TITLE: Silver halide photographic material containing styryl compound as sensitizing dye
INVENTOR(S): Hioki, Takanori
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

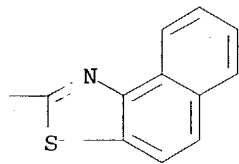
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11218872	A2	19990810	JP 1998-23666	19980204 <--
			JP 1998-23666	19980204 <--

PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 131:177297
AB The material contains a compound linked with ≥ 2 styryl bases by covalent linkage. The material shows high sensitivity and improved storage stability.
IT **238072-27-0P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photog. emulsions containing styryl compds. as sensitizing dye with improved storage stability)
RN 238072-27-0 HCAPLUS
CN 1,3-Propanediamine, N,N'-dimethyl-N,N'-bis[4-(2-naphtho[1,2-d]thiazol-2-ylethenyl)phenyl]- (9CI) (CA INDEX NAME)

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PAGE 1-B



L25 ANSWER 18 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:126979 HCAPLUS
DOCUMENT NUMBER: 130:183782
TITLE: Dye intermediates, their preparation and their use
INVENTOR(S): Griffiths, John; Mama, John; Millar, Valerie; Briggs, Mark Samuel Jonathan; Hamilton, Alan Lewis
PATENT ASSIGNEE(S): Nycomed Amersham PLC, UK
SOURCE: PCT Int. Appl., 68 pp.

Searched by P. Ruppel

DOCUMENT TYPE:

CODEN: PIXXD2

LANGUAGE:

Patent

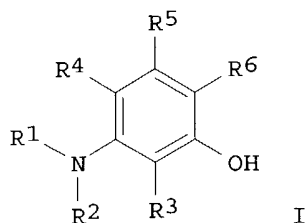
FAMILY ACC. NUM. COUNT:

English

1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9907793	A1	19990218	WO 1998-GB2334	19980804 <--
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1002020	A1	20000524	EP 1998-937652	19980804 <--
EP 1002020	B1	20021106		
R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 2003525307	T2	20030826	JP 2000-506284	19980804 <--
US 6458966	B1	20021001	US 2000-485177	20000424 <--
PRIORITY APPLN. INFO.:			GB 1997-16476	A 19970804 <--
			WO 1998-GB2334	W 19980804 <--
OTHER SOURCE(S):		MARPAT 130:183782		
GI				



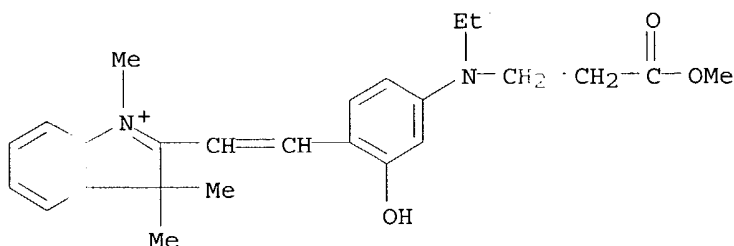
AB Various classes of dyes are provided having acid, ester, or amide groups for covalent linking to biomols. The dyes may be prepared by use of I (R1 comprises a linker and a carboxy-including acid, salt, ester including N-hydroxysuccinimide, activated ester or amide group; R2, R3, R4, R5 = H, C1-C10 alkyl, aralkyl, a group to modify solubility or electronic or spectral properties, functional linking group; R4R5 and/or R2R4 and/or R2R3 may be linked to form an extended ring system; and R6 = H, CHO, NO). Thus, 3-(ethylamino)phenol was heated with Me acrylate to give 3-[N-ethyl-N-[2-(methoxycarbonyl)ethyl]amino]phenol which with acetic anhydride gave 3-acetoxy-N-ethyl-N-[2-(methoxycarbonyl)ethyl]aniline; formylation resulted in 2-acetoxy-4-[N-ethyl-N-[2-(methoxycarbonyl)ethyl]amino]benzaldehyde (II). Cyclocondensation of II with 2-(cyanomethyl)benzimidazole gave 3-(2-benzimidazolyl)-7-[N-ethyl-N-[2-(methoxycarbonyl)ethyl]amino]-2-iminocoumarin, a green fluorescent dye (λ_{\max} 422 nm).

IT 220621-54-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photochromic pH-sensitive fluorescent dye; preparation of dyes and intermediates for biomol. markers)

RN 220621-54-5 HCAPLUS

CN 3H-Indolium, 2-[2-[4-[ethyl(3-methoxy-3-oxopropyl)amino]-2-hydroxyphenyl]ethenyl]-1,3,3-trimethyl- (9CF) (CA INDEX NAME)



L25 ANSWER 21 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:513580 HCAPLUS

DOCUMENT NUMBER: 127:217465

TITLE: Method of imaging amyloid deposits

INVENTOR(S): Caprathe, Bradley William; Gilmore, John Lodge; Hays, Sheryl Jeanne; Jaen, Juan Carlos; Levine, Harry, III

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9726919	A2	19970731	WO 1997-US251	19970102 <--
WO 9726919	A3	19971204		
W: AL, AU, BA, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KE, KR, LC, LK, LR, LS, LT, LV, MG, MK, MN, MW, MX, NO, NZ, PL, RO, SD, SG, SI, SK, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9715292	A1	19970820	AU 1997-15292	19970102 <--
ZA 9700571	A	19970730	ZA 1997-571	19970123 <--
US 6001331	A	19991214	US 1998-117101	19980722 <--
PRIORITY APPLN. INFO.:			US 1996-10495P	P 19960124 <--
			WO 1997-US251	W 19970102 <--

OTHER SOURCE(S): MARPAT 127:217465

AB The present invention provides a method of imaging amyloid deposits and radiolabeled compds. useful in imaging amyloid deposits. The invention also provides a method of delivering a therapeutic agent to amyloid deposits, a method of inhibiting the aggregation of amyloid proteins to form amyloid deposits, and a method of determining a compound's ability to inhibit aggregation of amyloid proteins.

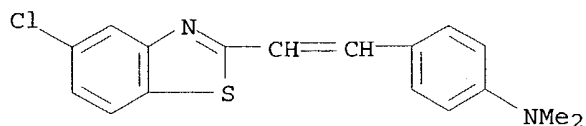
IT 69642-55-3P

RL: ARG (Analytical reagent use); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(method of imaging amyloid deposits)

RN 69642-55-3 HCAPLUS

CN Benzenamine, 4-[2-(5-chloro-2-benzothiazolyl)ethenyl]-N,N-dimethyl- (9CI)
(CA INDEX NAME)



L25 ANSWER 24 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:684765 HCAPLUS

DOCUMENT NUMBER: 125:312373

TITLE: Silver halide color photographic material containing reduction-sensitized emulsion and latent-image-stabilizing polymethine dye

INVENTOR(S): Sakamoto, Nobuo; Ootani, Hiroshi

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

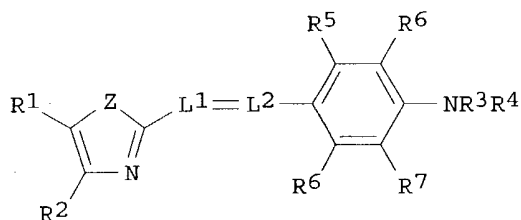
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08211576	A2	19960820	JP 1995-19266	19950207 <--
PRIORITY APPLN. INFO.: GI			JP 1995-19266	19950207 <--



I

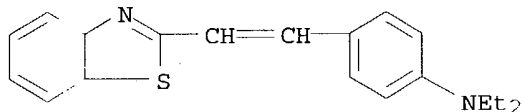
AB Claimed photog. material having red-, green- and blue-sensitive layer units each consisting of ≥ 2 emulsion layers is characterized by (1) that ≥ 1 layer of each layer unit comprises a reduction-sensitized emulsion and (2) that the other layer from each layer unit with different photog. speed contains a styryl dye I (R1-4 = H, alkyl, alkenyl, aryl, alkynyl, heterocyclic group; R5-8 = substituent; L1, L2 = methyne; Z = O, S, Se, Te, CR9, CR10, R9, R10 = H, alkyl, alkenyl, alkynyl, aryl, heterocyclic group; R1 and R2, R3 and R4, R5 and R6, R7 and R8, R9 and R10 may be combined to form rings). It has good processing stability and latent image stability, and is suitably used for high speed camera films, such as color neg. films.

IT 13242-17-6P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

and (Ag halide color photog. material containing reduction-sensitized emulsion latent-image-stabilizing polymethine dye)

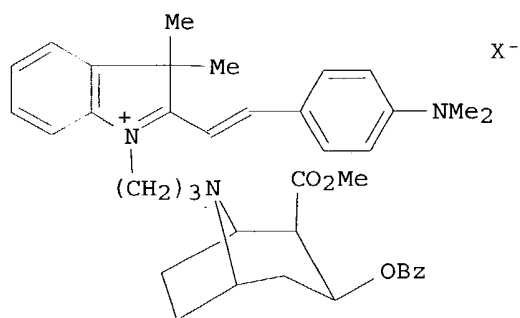
RN 13242-17-6 HCAPLUS
 CN Benzenamine, 4-[2-(2-benzothiazolyl)ethenyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 27 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1996:404671 HCAPLUS
 DOCUMENT NUMBER: 125:52969
 TITLE: Color indicators for determination of cocaine and methamphetamine
 INVENTOR(S): Shigefuji, Osayuki; Myazaki, Kimimasa; Nakayama, Hiroshi; Mitsumata, Tadayasu
 PATENT ASSIGNEE(S): Matsushita Electric Ind Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08092211	A2	19960409	JP 1994-244012	19941007 <--
JP 3249308	B2	20020121		
US 5571727	A	19961105	US 1994-319976	19941007 <--
PRIORITY APPLN. INFO.:			JP 1993-251513	A 19931007 <--
			JP 1993-316194	A 19931216 <--
			JP 1994-172437	A 19940725 <--

GI



I

AB A method and apparatus for detection of cocaine and methamphetamine are disclosed using a color indicator (I; X = halogen), its derivative, or merocyanine derivative. I is treated with antibody to cocaine in a container, and fluorescent light intensity is measured at the wave length of 590 nm using excitation wave length of 530 nm. The color indicators are useful in immunoassay or other biochem. detns.

IT 178384-31-1DP, halogen salts
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)

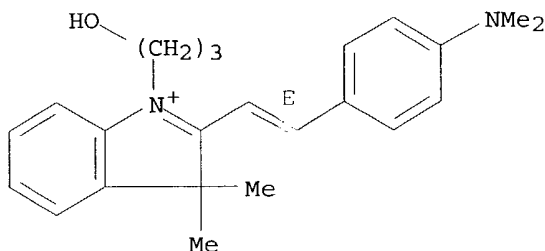
(determination of cocaine and methamphetamine by color indicator prepared

from)

RN 178384-31-1 HCAPLUS

CN 3H-Indolium, 2-[2-[4-(dimethylamino)phenyl]ethenyl]-1-(3-hydroxypropyl)
3,3-dimethyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L25 ANSWER 30 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:123662 HCAPLUS

DOCUMENT NUMBER: 124:160256

TITLE: Tight-wrapped photographic element containing
high-dye-yield coupler.

INVENTOR(S): Southby, David Thomas; Szajewski, Richard Peter

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: Eur. Pat. Appl., 89 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 684514	A1	19951129	EP 1995-201362	19950524 <--
EP 684514	B1	20020717		
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 07325370	A2	19951212	JP 1995-126373	19950525 <--
US 6007973	A	19991228	US 1997-939468	19970922 <--
PRIORITY APPLN. INFO.:			US 1994-250199	A 19940527 <--
			US 1995-565122	B1 19951130 <--

OTHER SOURCE(S): MARPAT 124:160256

AB The invention provides a tightly wrapped photog. element comprising a support bearing at least one photog. silver halide emulsion having associated therewith at least one high-dye-yield coupler that releases a dye having an elec. neutral dye chromophore, said element having a radius of curvature of less than 6000 μm . The tightly wrapped photog. element exhibits less pressure sensitivity than conventional elements while maintaining satisfactory photog. response.

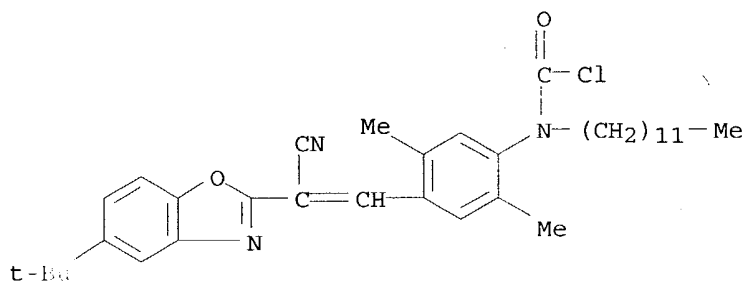
IT 171551-57-8P

RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation and reaction in preparing high-dye-yield photog. coupler)

RN 171551-57-8 HCAPLUS

CN Carbamic chloride, [4-[2-cyano-2-[5-(1,1-dimethylethyl)-2-benzoxazolyl]ethenyl]-2,5-dimethylphenyl]dodecyl- (9CI) (CA INDEX NAME)



L25 ANSWER 33 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:13241 HCAPLUS

DOCUMENT NUMBER: 124:160248

TITLE: Heat-developable diffusion-transfer color photographic material

INVENTOR(S): Texter, John; Welter, Thomas R.; Southby, David T.; Mooberry, Jared B.

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: U.S., 30 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5470688	A	19951128	US 1994-250146	19940527 <--
JP 07325378	A2	19951212	JP 1995-130824	19950529 <--
PRIORITY APPLN. INFO.:			US 1994-250146	19940527 <--

OTHER SOURCE(S): MARPAT 124:160248

AB This invention provides a heat-developable diffusion-transfer color photog. material comprising a dimensionally stable support and one or more layers comprising radiation-sensitive silver halides, an organic silver salt oxidizing agent, a reducing agent, a methine dye-releasing compound, and a binder, wherein the methine dye is heat-diffusible in the material and the methine dye-releasing compound is of the structure CpLM where Cp is a coupler radical substituted in the coupling position with a divalent linking group, L; M is a methine dye radical exhibiting selective absorption in the visible spectrum; and the LM group couples off upon reaction of the coupler radical with the oxidation product of a primary amine developing agent and the methine dye radical M is released from the LM group subsequent to the coupling off of the LM group.

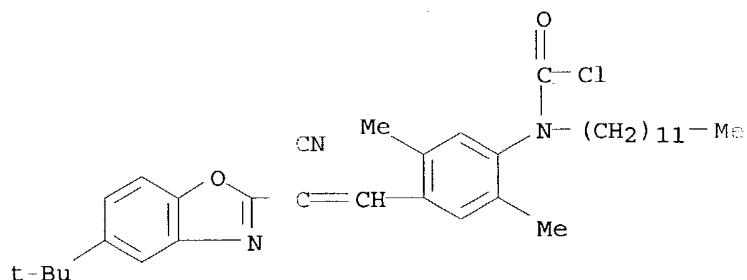
IT 171551-57-8P

RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation and reaction in preparing methine dye-releasing compound for heat-developable diffusion-transfer color photog. materials)

RN 171551-57-8 HCAPLUS

CN Carbamic chloride, [4-[2-cyano-2-[5-(1,1-dimethylethyl)-2-benzoxazolyl]ethenyl]-2,5-dimethylphenyl]dodecyl- (9CI) (CA INDEX NAME)



L25 ANSWER 36 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:896603 HCAPLUS

DOCUMENT NUMBER: 124:71689

TITLE: Methine-dye-releasing coupler for thermal diffusion-transfer imaging system

INVENTOR(S): Texter, John; Welter, Thomas R.; Southby, David T.; Mooberry, Jared B.

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: U.S., 30 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5455140	A	19951003	US 1994-250145	19940527 <--
PRIORITY APPLN. INFO.:			US 1994-250145	19940527 <--

OTHER SOURCE(S): MARPAT 124:71689

AB An aqueous-developable photog. color diffusion-transfer element is disclosed where the element comprises a dimensionally stable support and one or more layers comprising radiation-sensitive silver halide, thermal solvent for facilitating the thermal diffusion of dyes through a hydrophilic binder, a methine-dye-releasing coupler, and hydrophilic binder, wherein said dye is heat-diffusible in said binder and thermal solvent, and said methine-dye-releasing coupler is of the structure CpLM where Cp is a coupler radical substituted in the coupling position with a divalent linking group L, M is a methine-dye radical exhibiting selective absorption in the visible spectrum, the LM group couples off upon reaction of said coupler radical with the oxidation product of a primary amine developing agent, and said methine-dye radical M is released from said LM group subsequent to the coupling off of said LM group. Also disclosed in this invention is a diffusion-transfer process for forming a color photog. image comprising the steps of exposing said element to actinic radiation, processing said element by immersing said element in an external aqueous bath containing color developer of the primary amine type, washing said element, drying said element to remove the imbibed water, and heating said element to effect dye diffusion transfer to an image receiving layer.

IT 171551-57-8P

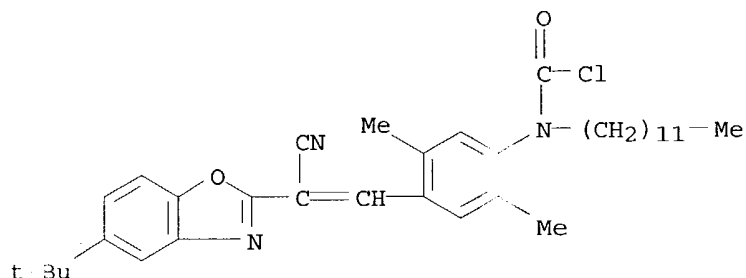
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction in preparing methine-dye-releasing coupler for thermal diffusion-transfer imaging system)

RN 171551-57-8 HCAPLUS

CN Carbamic chloride, [4-[2-cyano-2-[5-(1,1-dimethylethyl)-2-

benzoxazolyl]ethenyl]-2,5-dimethylphenyl]dodecyl- (9CI) (CA INDEX NAME)



L25 ANSWER 39 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:636384 HCAPLUS

DOCUMENT NUMBER: 123:156299

TITLE: Silver halide color photographic material containing magenta coupler and aminostyryl derivative sensitizing and stabilizing agent

INVENTOR(S): Hioki, Katsuhiko

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

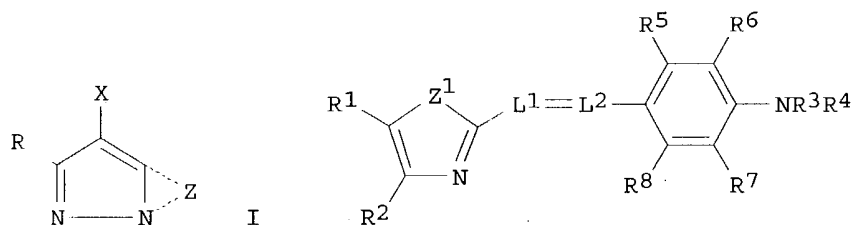
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07092630	A2	19950407	JP 1993-236758	19930922 <--
PRIORITY APPLN. INFO.:			JP 1993-236758	19930922 <--

GI

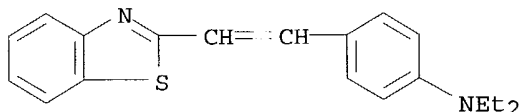


AB In the material having ≥ 1 blue-sensitive, ≥ 1 green-sensitive, and ≥ 1 red-sensitive Ag halide emulsion layers on a support, ≥ 1 emulsion layer contains ≥ 1 magenta coupler I and ≥ 1 aminostyryl derivative II [R = H, substituent; Z = nonmetallic atomic group to form a (substituted) N-containing heterocycle; X = H, leaving group by reaction with oxidant of color developer; R1-4, R12-13 = H, alkyl, alkenyl, alkynyl, aryl, heterocycle; R5-8 = substitute; L1-2 = methine; Z1 = O, S, Se, Te, CR12R13, NR12; R1-2, R3-4, R7-8, and/or R12-13 may form ring(s), resp.]. The material showed high sensitivity and gave images with good color reproduction

IT 13242-17-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sensitizing and stabilizing agent; silver halide color photog.
material containing magenta coupler and aminostyryl derivative sensitizing

and
stabilizing agent)
RN 13242-17-6 HCAPLUS
CN Benzenamine, 4-[2-(2-benzothiazolyl)ethenyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 42 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:490122 HCAPLUS

DOCUMENT NUMBER: 122:302924

TITLE: Silver halide photographic emulsion having tabular grains adsorbed by styryl dye

INVENTOR(S): Fukazawa, Fumyoshi

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07013281	A2	19950117	JP 1993-172251	19930618 <--
PRIORITY APPLN. INFO.:			JP 1993-172251	19930618 <--

GI For diagram(s), see printed CA Issue.

AB The claimed Ag halide emulsion contains, in the amount of $\geq 70\%$ of the total projection area, tabular grains characterized by (1) that $\geq 90\%$ of the parallel planes and edge surfaces have (111) surface structure covered by the adsorbed dye I (R1-4 = H, alkyl, aryl, alkenyl, alkynyl, heterocyclic group; R5-8 = substituent; L1, L2 = methyne; Z = O, S, Se, Te, CR9R10, NR9, R10 = H, alkyl, aryl, alkenyl, alkynyl, heterocyclic group; R1 and R2, R3 and R4, R5 and R6, R7 and R8, R9 and R10 may be combined to form a ring) or II (Z2 = imidazole ring; R12 = alkyl; R13 = H or alkylene to combine with R12; R11 = aryl). The emulsion has high sensitivity and high latent image stability.

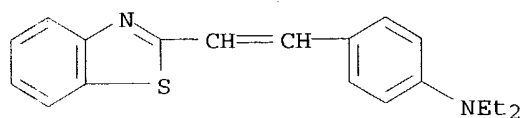
IT 13242-17-6P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(Ag halide photog. emulsion having tabular grains adsorbed by styryl dye for sensitization additive)

RN 13242-17-6 HCAPLUS

CN Benzenamine, 4-[2-(2-benzothiazolyl)ethenyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 45 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:275768 HCAPLUS

DOCUMENT NUMBER: 122:201085

TITLE: Silver halide photographic emulsion and material using it

INVENTOR(S): Hioki, Katsuhiko

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

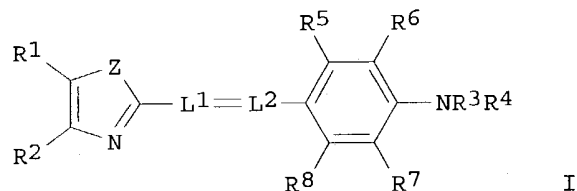
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06289527	A2	19941018	JP 1993-75832	19930401 <--
US 5478720	A	19951226	US 1994-218770	19940328 <--
PRIORITY APPLN. INFO.:			JP 1993-75832	19930401 <--
OTHER SOURCE(S):	MARPAT 122:201085			

GI



AB The emulsions contain monomethine cyanine and trimethine cyanine dyes and supersensitizers. The sensitizers may be methine derivs. I (R1-4 = H, alkyl, alkenyl, alkynyl, aryl, heterocyclic group; L1 and L2 methine; Z = O, S, Se, Te, CR9R10, NR9; R9-10 = H, alkyl, alkenyl, alkynyl, aryl, heterocyclic group). The material shows good color reproducibility and high sensitivity.

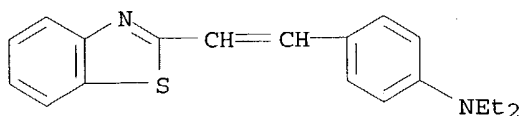
IT 13242-17-6P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(supersensitizer; photog. material having emulsion containing methine cyanine dye and methine supersensitizer)

RN 13242-17-6 HCAPLUS

CN Benzenamine, 4-[2-(2-benzothiazolyl)ethenyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

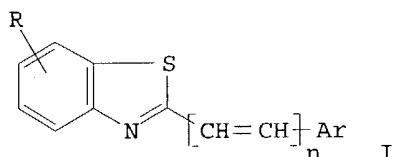


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L25 ANSWER 48 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1994:310972 HCAPLUS
 DOCUMENT NUMBER: 120:310972
 TITLE: Benzothiazole nonlinear optical material
 INVENTOR(S): Konishi, Akiko; Teramura, Kaoru
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05341336	A2	19931224	JP 1992-151959	19920611 <--
PRIORITY APPLN. INFO.:			JP 1992-151959	19920611 <--
OTHER SOURCE(S):	MARPAT 120:310972			

GI

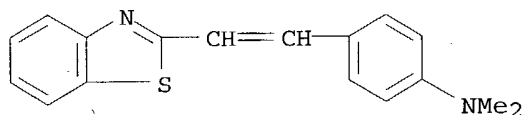


AB The title material consists of a benzothiazole compound having a general structure I (Ar = aromatic; R = H, alkyl, halo, Ph, NO₂; n = 0, 1). The material is useful for electrooptical devices, wavelength converters, and optical switches.

IT 1628-58-6P, 2-(p-Dimethylaminostyryl)benzothiazole
 RL: PREP (Preparation)
 (preparation of, nonlinear optical materials)

RN 1628-58-6 HCAPLUS

CN Benzenamine, 4-[2-(2-benzothiazolyl)ethenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



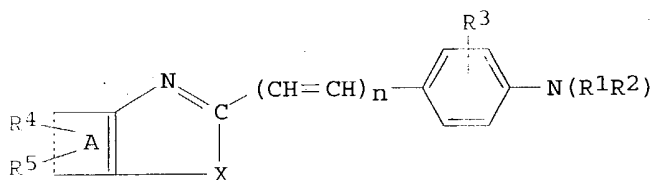
L25 ANSWER 51 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1993:49298 HCAPLUS
 DOCUMENT NUMBER: 118:49298

Searched by P. Ruppel

TITLE: Light-shielding material for preventing light reflection and scattering on substrate
 INVENTOR(S): Furuta, Yasushi; Tamura, Yoshisada
 PATENT ASSIGNEE(S): Nippon Chemical Industrial Co., Ltd.; Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04153290	A2	19920526	JP 1990-277785	19901018 <--
JP 2923345	B2	19990726		
PRIORITY APPLN. INFO.:			JP 1990-277785	19901018 <--

GI



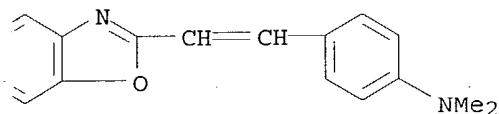
AB The title light shielding material is made of a benzo- or naphtho-azole compound I [R1,2 = H, alkyl,; R3 = H, OH, halo, alkyl, alkoxy; R4,5 = H, halo, alkyl, alkoxy; X = O, S, NH, NR (R = alkyl); n = 0, 1; A = benzene, naphthalene]. This light-shielding material has absorption in 300-450 nm and is useful for precision-patterning of a photoresist film.

IT 24675-13-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and use of, light-shielding material from, with absorption in near-UV to visible regions)

RN 24675-13-6 HCAPLUS

CN Benzenamine, 4-[2-(2-benzoxazolyl)ethenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 54 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:633711 HCAPLUS

DOCUMENT NUMBER: 115:233711

TITLE: Polymerizable methine colorant and powdered polyester color concentrates

INVENTOR(S): Krutak, James John; Parham, William Whitfield; Weaver, Max Allen; Coates, Clarence Alvin, Jr.; Oldfield, Terry Ann

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9110693	A1	19910725	WO 1991-US19	19910103 <--
W: CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5106942	A	19920421	US 1990-461961	19900108 <--
CA 2048992	AA	19910709	CA 1991-2048992	19910103 <--
CA 2048992	C	19970128		
EP 462262	A1	19911227	EP 1991-902637	19910103 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 04505032	T2	19920903	JP 1991-502959	19910103 <--
PRIORITY APPLN. INFO.:				US 1990-461961
				19900108 <--
				WO 1991-US19
				19910103 <--

AB The title polymer concentrate which are nonleachable and used to impart yellow shades to various polymer materials, i.e. personal, medical, and homecare products, comprise $\geq 1.0\%$ residues of the dye ACH:C(CN)B (A = aniline, 1,2,3,4-tetrahydroquinoline, 2,3-dihydro-1,4-benzoxazine or 2,3-dihydroindole residue; B = alkoxycarbonyl radical or an aromatic, carbocyclic or heterocyclic radical). Heating 66.3 g N-(2-acetyloxyethyl)-N-ethyl-m-toluidine with 46.5 g POCl₃ at 85-90° for 1.5 h, adding this mixture dropwise to Me cyanoacetate 34.6, NaOAc 93.8 g, and iso-PrOH 300 mL at 50-60°, then heating at 60-65° for 1.5 h gave 87 g yield of methyl-3-[4-[[2-(acetyloxy)ethyl]ethylamino]-2-methylphenyl]-2-cyano-2-propenoate (I; m.p. 101-102°). Polytransesterification of di-Me terephthalate 0.80, ethylene glycol 1.60, and I 0.545 mol in presence of a Ti catalyst gave a polyester having colorant residue 10.3%, melt temperature 237°, and number-average mol. weight 20,843.

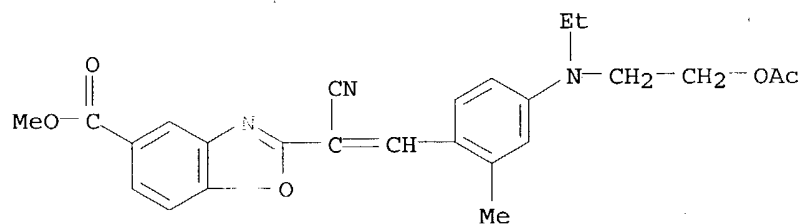
IT 137083-79-5P

RL: PREP (Preparation)

(preparation and polymerization, of with diacid and diol)

RN 137083-79-5 HCAPLUS

CN 5-Benzoxazolecarboxylic acid, 2-[2-[4-[[2-(acetyloxy)ethyl]ethylamino]-2-methylphenyl]-1-cyanoethenyl]-, methyl ester (9CI) (CA INDEX NAME)



L25 ANSWER 57 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:415267 HCAPLUS

DOCUMENT NUMBER: 111:15267

TITLE: Silver halide photographic material containing an organic desensitizer to improve the direct positive characteristics

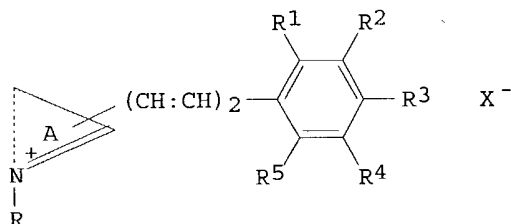
INVENTOR(S): Miura, Taketoshi; Tanaka, Akira

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan

Searched by P. Ruppel

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63243937	A2	19881011	JP 1987-78742	19870330 <--
PRIORITY APPLN. INFO.: GI			JP 1987-78742	19870330 <--



AB The claimed direct pos. photog. material contains ≥ 1 organic desensitizer I (R = alkyl; ≥ 1 of R1-R5 is an electron-attracting group having the Hamet's sigma value of ≥ 0.21 and the rest of the R1-R5 are H, alkyl; A = 5- or 6-membered heterocyclic group; X = anion). The desensitizer works as an effective electron acceptor, enhancing the direct pos. characteristics, such as high maximum and low min. d. and increases the photog. speed. Thus, addition of compound I (R = N-ethyl-6-ethoxy-quinoline-2; R1 = NO₂; R2.apprx.R5 = H) to a surface-fogged Ag(Br,I) emulsion (average diameter 0.25 μ m, cubic, monodispersed) and coating it on a polyethylene-coated paper support resulted a direct pos. black-and white paper.

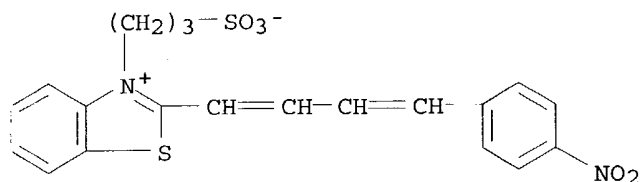
IT 121062-51-9P

RL: PREP (Preparation)

(desensitizer, preparation of, in direct-pos. photog. emulsion)

RN 121062-51-9 HCAPLUS

CN Benzothiazolium, 2-[4-(4-nitrophenyl)-1,3-butadienyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L25 ANSWER 60 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1982:182763 HCAPLUS

DOCUMENT NUMBER: 96:182763

TITLE: Disperse methine dyes from heterocyclic acetonitriles

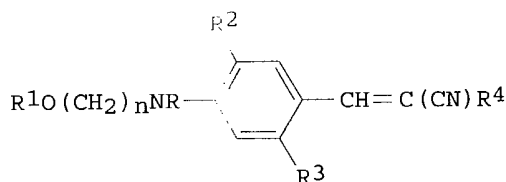
INVENTOR(S): Hunt, K.

PATENT ASSIGNEE(S): Kodak Ltd., UK

SOURCE: Brit. UK Pat. Appl., 16 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

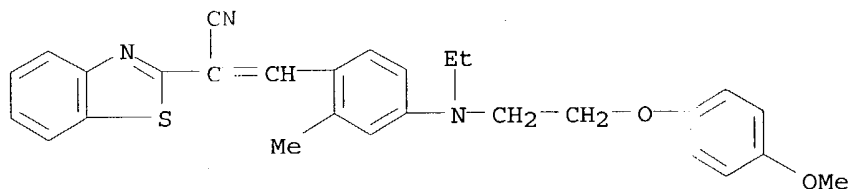
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2077751	A	19811223	GB 1980-16213	19800516 <--
GB 2077751	B2	19830928		
US 4312985	A	19820126	US 1980-182732	19800829 <--
PRIORITY APPLN. INFO.:			GB 1980-16213	19800516 <--

GI



AB Fast, deep yellow or orange to neutral yellow dyes of general structure I are described, where R = H, aryl; cyclohexyl, lower alkyl or substituted lower alkyl, R1 = Ph or substituted Ph, R2 = H, Cl, lower alkyl, or lower alkoxy (R and R2 may form a 5- or 6-membered ring), R3 = H, Cl, lower alkyl, or lower alkoxy, R4 = substituted or unsubstituted heterocyclyl, e.g. 3-pyridyl or 2-benzothiazolyl, and n = 1-4. For example, 3,4-Me(HCO)C6H3NEtCH2CH2OC6H4OMe-4 [81462-73-9] in EtOH was mixed with 2-benzothiazoleacetonitrile [56278-50-3] and piperidine and heated on a steam bath to give orange crystalline I (R = Et, R1 = 4-MeOC6H4, R2 = H, R3 = Me, R4 = 2-benzothiazolyl, n = 2) [81462-74-0], a deep yellow polyester fiber dye with excellent pH stability in dyebaths.

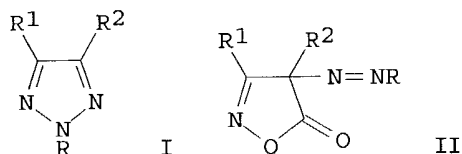
IT **81462-74-0P**
 RL: PREP (Preparation)
 (manufacture of, as disperse dye for polyester fibers)
 RN 81462-74-0 HCAPLUS
 CN 2-Benzothiazoleacetonitrile, α -[[4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]-2-methylphenyl]methylene]- (9CI) (CA INDEX NAME)



L25 ANSWER 63 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1980:94406 HCAPLUS
 DOCUMENT NUMBER: 92:94406
 TITLE: 2-Substituted-1,2,3-triazoles

INVENTOR(S): Knupfer, Hans; Schellhammer, Carl Wolfgang
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 27 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2815956	A1	19791018	DE 1978-2815956	19780413 <--
EP 4897	A2	19791031	EP 1979-100991	19790331 <--
EP 4897	B1	19810318		
R: CH, DE, FR, GB, IT				
JP 54148818	A2	19791121	JP 1979-43130	19790411 <--
US 4284787	A	19810818	US 1979-29049	19790411 <--
PRIORITY APPLN. INFO.: GI			DE 1978-2815956	19780413 <--



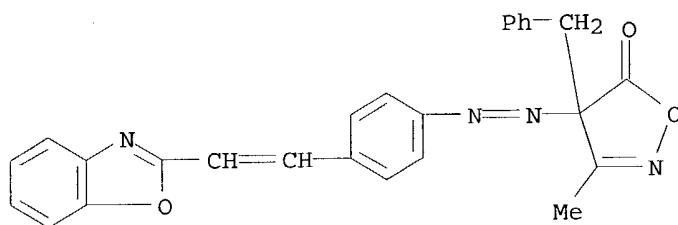
AB The title compds. I (R = aromatic or heteroarom. group; R1 = H, alkyl, aryl; R2 = alkyl, aryl; R1R2 may form a ring) were prepared by heating II at 20-150° in the presence of a base. Thus, II (R = 4-O2NC6H4, R1 = Ph, R2 = Me) was heated at 70° with Et3N and CH2Cl to give the corresponding I.

IT 72746-24-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and rearrangement of, substituted triazole from)

RN 72746-24-8 HCAPLUS

CN 5(4H)-Isioxazolone, 4-[[4-[2-(2-benzoxazolyl)ethenyl]phenyl]azo]-3-methyl-4-(phenylmethyl)- (9CI) (CA INDEX NAME)



L25 ANSWER 66 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1976:32592 HCAPLUS
 DOCUMENT NUMBER: 84:32592
 TITLE: Fluorescing quinoline compounds
 INVENTOR(S): Grychtol, Klaus

Searched by P. Ruppel

PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 23 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: **Patent**
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2363459	A1	19750626	DE 1973-2363459	19731220 <--
PRIORITY APPLN. INFO.:			DE 1973-2363459	19731220 <--

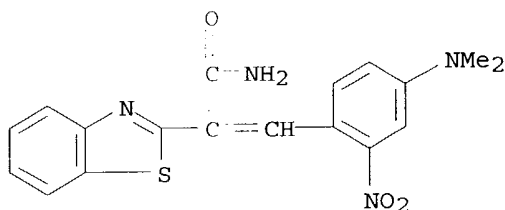
GI For diagram(s), see printed CA Issue.

AB Sixteen aminoquinolines (I) were prepared, where R = Me or Et, R1 = CN, carbamoyl, carbalkoxy, N-heterocyclic, or quaternized N-heterocyclic group, and R2 = OH or NH2. I with R1 = CN, carbamoyl, or carbalkoxy were used as fluorescent whiteners for synthetic fibers, and I with R1 = N-heterocyclic or quaternized N-heterocyclic group were brilliant yellow dyes for acrylic or synthetic fibers or yellow color formers for copying paper. Thus, reaction of 2,4-H2N(Me2N)C6H3CH:NC6H4Me-4 [56670-21-4] with CH2(CN)2 [109-77-3] in EtOH containing HOAc and piperidine gave 2-amino-3-cyano-7-(dimethylamino)quinoline [56670-03-2], a colorless dilute solution of which showed an intense blue fluorescence in daylight and brightened synthetic fibers. α -(2-Benzothiazolyl)- β -[2-nitro-4-(dimethylamino)phenyl]acrylamide [56670-00-9] [from 2,4-O2N(Me2N)C6H3CHO [56670-20-3] and 2-benzothiazoleacetamide [51542-41-7]] was reductively cyclized with Zn-HCl to give I(R = Me, R1 = 2-benzothiazolyl, R2 = OH) [56670-22-5], brilliant yellow on synthetic fibers.

IT **56670-00-9P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reductive cyclization of)

RN 56670-00-9 HCAPLUS

CN 2-Benzothiazoleacetamide, α -[[4-(dimethylamino)-2-nitrophenyl]methylene]- (9CI) (CA INDEX NAME)



L25 ANSWER 69 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1975:412227 HCAPLUS

DOCUMENT NUMBER: 83:12227

TITLE: Cyanine dyes and their use in photographic recording materials

INVENTOR(S): Beretta, Paolo; Valbusa, Luigi

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.

SOURCE: Ger. Offen., 60 pp.
 CODEN: GWXXBX

DOCUMENT TYPE: **Patent**

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2429230	A1	19750109	DE 1974-2429230	19740618 <--
DE 2429230	C2	19890831		
IT 988269	A	19750410	IT 1973-50882	19730618 <--
US 4025347	A	19770524	US 1974-478710	19740612 <--
FR 2233371	A1	19750110	FR 1974-20877	19740617 <--
FR 2233371	B1	19781117		
CA 1052795	A1	19790417	CA 1974-202665	19740617 <--
BE 816503	A1	19741218	BE 1974-145568	19740618 <--
JP 50071321	A2	19750613	JP 1974-69590	19740618 <--
JP 58058654	B4	19831226		
GB 1470601	A	19770414	GB 1974-27037	19740618 <--
			IT 1973-50882	19730618 <--

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

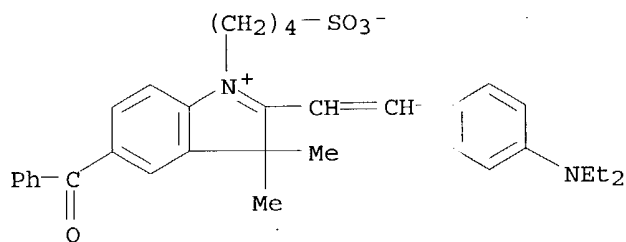
AB Carbocyanine, merocyanine, and styryl dyes consisting of a 5-benzoyl- or 5-(phenylsulfonyl)indole residue linked to a heterocyclic or p-aminophenyl group through a methine bridge were prepared and used as sensitizers and desensitizers for photog. emulsions. Thus, 4-PhSO₂C₆H₄NHN:CMeph [55203-35-5] was heated with ZnCl₂ to give 2-phenyl-5-(phenylsulfonyl)-1H-indole [55203-36-6] which was converted to 2-phenyl-3-formyl-5-(phenylsulfonyl)-1H-indole [55203-41-3] by the Vilsmeier reagent and subsequently condensed with 2-methyl-3-ethyl-6-nitrobenzothiazolium iodide [14134-75-9] to form cyanine dye I [55203-47-9]. Also prepared were II [55203-71-9] and 27 other dyes.

IT 55203-85-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation and photographic sensitization by)

RN 55203-85-5 HCAPLUS

CN 3H-Indolium, 5-benzoyl-2-[2-[4-(diethylamino)phenyl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



L25 ANSWER 72 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1974:438968 HCAPLUS

DOCUMENT NUMBER: 81:38968

TITLE: Cyanine dyes

INVENTOR(S): Hishiki, Yasushi

PATENT ASSIGNEE(S): Japanese Research Institute for Photosensitizing Dyes
Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Searched by P. Ruppel

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48051920	A2	19730721	JP 1971-86965	19711101 <--
JP 52039056	B4	19771003		

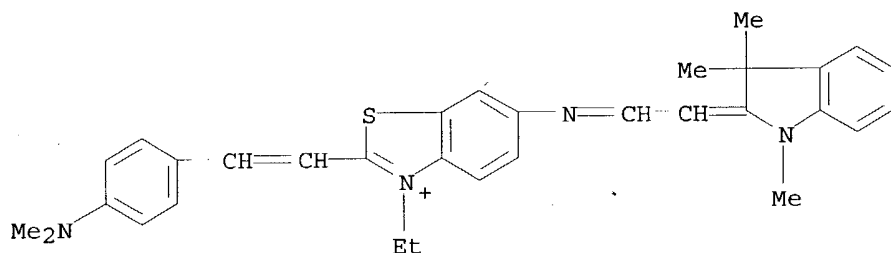
PRIORITY APPLN. INFO.: JP 1971-86965 19711101 <--

AB About 9 photosensitizing dyes, e.g. I, II, III, or IV, were prepared based on Astrazon Yellow 5G. Thus, heating RMe (Z = iodine) (V) with 2-methylthio- or 2-[2-(acetanilino)vinyl]-3-ethylbenzothiazolium salt in the presence of Ac2O and C5H5N or KOAc gave 56% cyanine dye I (Z = Br, n = 0, X = S) [42971-69-7] or 80% cyanine dye I (Z = ClO4, n = 1, X = S) [42971-70-0], resp. Other examples are I (Z = iodine, n = 1, X = O or Se). II was prepared by heating V and p-Me2NC6H4CHO in Ac2O.

IT **43061-80-9P**
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

RN 43061-80-9 HCAPLUS

CN Benzothiazolium, 6-[[[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]amino]-2-[2-[4-(dimethylamino)phenyl]ethenyl]-3-ethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 75 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1972:528075 HCAPLUS

DOCUMENT NUMBER: 77:128075

TITLE: Oxazolylicoumarin dyes

INVENTOR(S): Harnisch, Horst

PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.

SOURCE: Ger. Offen., 64 pp. Division of Ger. Offen 2,058,877.

CODEN: GWXXBX

DOCUMENT TYPE: **Patent**

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2065076	A	19720622	DE 1970-2065076	19701130 <--

PRIORITY APPLN. INFO.: DE 1970-2065076 19701130 <--

AB Thirteen title compds. [I; R = Et or Me; R1 = Me, H, Cl, SO2NMe2, SO2Et, cyclohexyl, CMe3, or Ph; R2 = H, or (R1R2) = CH:CHCH:CH or o-C6H4O; R3 = H, Me, or SO3Na], dyeing polyester, polyamide, cellulose, and wool fibers fast brilliant greenish yellow shades, were prepared by reaction either of 2,4-HO(R2N)C6H3CHO (II) with benzoxazolylicetamides (III) (obtained from NCCH2CO2Et and R4R5NH via NCCH2CONR4R5 and subsequent cyclization with o-aminophenols) or of II with bis(benzoxazolylicetamides) (IV) and cyclization. Thus, NCCH2CO2Et and MeO(CH2)3NH2 were mixed with cooling and heated 30 min at 60.deg., 4,3-HO(H2N)C6H3Me was added, and the mixture

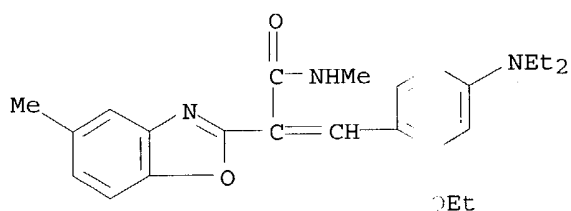
heated 6 hr at 180.deg. under N to give the corresponding III, which without isolation was refluxed 20hr with II (R = Et) in Me2CHOH containing piperidine to give a dye (I; R = Et, R1 = Me, R2 = R3 = H) (V) [34564-13-1]. V was also obtained by reaction of 4,3-HO(H2N)C6H3Me and CH2(CO2Et)2 to give bis(5-methylbenzoxazolyl)methane [25798-47-4], reaction with II (R = Et) in EtOH containing piperidine to form 1-[2-hydroxy-4-(diethylamino)phenyl]-2,2-bis(5-methyl-2-benzoxazolyl)ethylene [36526-05-3], and cyclization with 96% H2SO4 at 50.deg..

IT 35773-52-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 35773-52-5 HCAPLUS

CN 2-Benzoxazoleacetamide. α-[[4-(diethylamino)-2-ethoxyphenyl]methylene]-N,5-dimethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 78 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1972:128826 HCAPLUS

DOCUMENT NUMBER: 78:128826

TITLE: Oxazolylacetic acid derivatives and oxazolylcoumarins for dyeing organic fibers

INVENTOR(S): Harnisch, Horst

PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.

SOURCE: Ger. Offen., 80 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2030507	A	19720105	DE 1970-2030507	19700620 <--
DE 2030507	B2	19740919		
DE 2030507	C3	19750522		
CH 717157	A4	19760630	CH 1971-7157	19710513 <--
CH 587833	A	19770513	CH 1973-16185	19710513 <--
CH 585250	A	19770228	CH 1973-16186	19710613 <--
BE 768722	A1	19711103	BE 1971-104800	19710618 <--
NL 7108436	A	19711222	NL 1971-8436	19710618 <--
FR 2099247	A5	19720310	FR 1971-22352	19710618 <--
GB 1329042	A	19730905	GB 1971-28704	19710618 <--
GB 1329043	A	19730905	GB 1972-38453	19710618 <--
AT 310707	B	19731010	AT 1971-5278	19710618 <--
AT 310743	B	19731010	AT 1972-6152	19710618 <--
JP 50023028	B4	19750805	JP 1971-43359	19710618 <--
US 3985763	A	19761012	US 1973-369124	19730612 <--
JP 50069380	A2	19750610	JP 1974-99075	19740830 <--

Searched by P. Ruppel

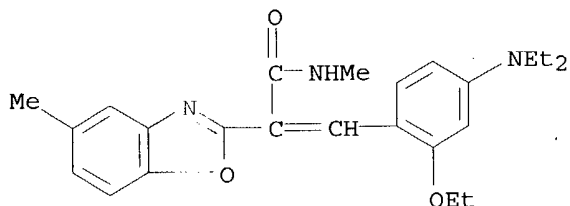
JP 51006266 B4 19760226
 JP 51000526 A2 19760106 JP 1974-99076 19740830 <--
 JP 51042125 B4 19761113
 PRIORITY APPLN. INFO.: DE 1970-2030507 19700620 <--
 DE 1970-2058877 19701130 <--
 US 1971-154652 19710618 <--

AB Oxazoles [I, A represents benzene, naphthalene, or dibenzofuran ring; R = H, alkyl, cyclohexyl, aralkyl, aryl; R1 = H, alkyl, cyclohexyl, aralkyl, aryl, or (RR1N) = heterocyclic ring] were prepared by reaction of o-aminophenols with NCCH2CONRR1 and treated with 4-(dialkylamino)salicylaldehydes to give oxazolylcoumarins (II, R = Me, Et), fluorescent dyes for natural and synthetic fibers. For example, a mixture of o-H2NC6H4OH and NCCH2CONH2 was heated under N 30 min at 140-60.deg., 15 min at 150-60.deg., and 1 hr at 170.deg. to give 2-(2-benzoxazolyl)acetamide [34564-12-0]. Similarly, 46 other I were prepared. A mixture of NCCH2CO2Et and MeO(CH2)3NH2 was heated 30 min at 60.deg., 3,4-H2N(HO)C6H3Me added, and the mixture heated 6 hr at 180.deg. to give N-(3-methoxypropyl)-5-methyl-2-benzoxazoleacetamide which (without isolation) was refluxed 20 hr with 4,2-Et2N(HO)C6H3CHO and iso-PrOH in the presence of piperidine to give 7-(diethylamino)-3-(5-methyl-2-benzoxazolyl)coumarin [34564-13-1], dyeing nylon-6 fabric a fast, brilliant greenish yellow shade. Similarly, 13 other II were prepared

IT 35773-52-5P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

RN 35773-52-5 HCAPLUS

CN 2-Benzoxazoleacetamide, α -[[4-(diethylamino)-2-ethoxyphenyl]methylene]-N,5-dimethyl- (9CI) (CA INDEX NAME)



L25 ANSWER 81 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1970:404974 HCAPLUS

DOCUMENT NUMBER: 73:4974

TITLE: Photoconductive benzobisthiazoles and their use in electrophotographic processes

INVENTOR(S): Clecak, Nicholas J.; Cox, Robert J.; Solar, Samuel L.; Wurster, Herbert K.

PATENT ASSIGNEE(S): International Business Machines Corp.

SOURCE: U.S., 9 pp.
 CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3489558	A	19700113	US 1967-668703	19670918 <--
GB 1244767	A	19710902	GB 1968-1244767	19680826 <--

GB 1244764	A	19710902	GB 1968-1244764	19680826 <--
FR 1577856	A	19690808	FR 1968-1577856	19680828 <--
PRIORITY APPLN. INFO.:			US 1967-668703	19670918 <--

GI For diagram(s), see printed CA Issue.

AB The title compds. (I, II) were prepared and used in electrophotographic processes, especially those utilizing contact reflex exposure. A solution of

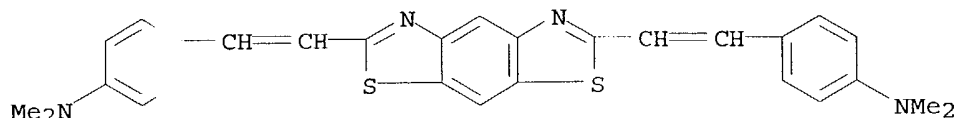
4 g 2,6-(H₂N)₂C₆H₃Cl and 6 g NH₄SCN in 50 ml 80% AcOH was treated below 20° with a solution of 4.5 g (ClNH)₂CO in 50 ml AcOH, stirred for 30 min, filtered, washed, digested with 125 ml 20% HCl for 1 hr, cooled, and neutralized with NH₄H to give 4.8 g I (X = CCl, R₁ = R₂ = NH₂) (III), white crystals, m. >50° (EtOH). Similarly, other I (X = CR, R₁ = R₂ = NH₂) were prepared (R and m.p. given): OMe, 305° (decomposition) [from 2,6,3,5, -(H₂N)₂(NCS)₂C₆H₂OMe, m. 155.5-6.5°]; Me, >330° [from 2,6,3,5, -(H₂N)₂(NCS)₂C₆H₂Me, m. 213-14°]. A mixture of 4.0 g III and 5.8 g 4-Me₂N₂C₆H₄CHO (IV) in 150 ml HCONMe₂ was refluxed for 5 hr to give 2.6 g I [X = CCl, R₁ = R₂ = N:CHC₆H₄NMe₂-4 (Q)] deep orange crystals, m. 295-6° (HCONMe₂). Similarly other I (X = CR, R₁ = R₂ = N:CHC₆H₄Y-4) were prepared (R, Y, appearance, and m.p. given): OMe, NMe₂, red-orange crystals, 312-15°; Me, NMe₂, bright orange crystals, 263°; H, NMe₂ (V), bright orange crystals, 317-19°; H, NMe₂, -, -, H, Cl, golden yellow crystals, 331-2°; H, NO₂, dark brown crystals, 316°; H, OMe, dark yellow crystals, 224-6°; H, F, light yellow crystal, 321°; H, morpholino, -, 318-19°. Similarly other I (X = CH) were prepared (R₁, R₂, appearance, and m.p. given): H₂N, N:CHC₆H₄NO₂-4 (Q₁), brown crystals, >300°; Q, Q₁, red-purple crystals, >300°; N:CHZ (Z = 9-julolidinyl), N:CHZ, red-purple crystals, >300°; N:CHCH:CHC₆H₄NMe₂ (Z₁), Z₁, red-purple crystals, 300-2°. I (X = CH, R₁ = R₂ = Me) and IV refluxed in H(OCH₂CH₂)₂OH with a trace of SnCl₂ gave orange I [X = CH, R₁ = R₂ = (CH:CH)nC₆H₄NMe₂-4] VI, n = 1, m. >350°. Similarly, 4-Me₂N₂C₆H₄(CH:CH)₂CH₃ gave dark blue VI (n = 3), m. >360°. I (X = CH, R₁ = R₂ = NH₂) tetratized and coupled with PhNMe₂ gave dark blue I (X = CH, R₁ = R₂ = N:NC₆H₄NMe₂-4). Similarly 2,6-diaminopyridine gave I (X = N, R₁ = R₂ = NH₂), m. >300°, which with IV gave dark red I (X = N, R₁ = R₂ = Q), m. 300°. Similarly 2,4-(H₂N)₂C₆H₃Cl gave 2,4,3,5-(H₂N)₂(NCS)₂C₆H₂ (VII, R = Cl), m. 187-8°, cyclized to II (R = Cl, R₁ = R₂ = NH₂), m. >350°, which was converted to deep orange II (R = Cl, R₁ = R₂ = Q), m. 274-6°. Similarly were prepared VII (R = OMe), m. 163-4°, II (R = OMe, R₁ = R₂ = NH₂), m. 312-14°, VII (R = Me), m. 185-6°, II (R = Me, R₁ = R₂ = NH₂), m. 309°, and orange II (R = Me, R₁ = R₂ = Q), m. 245°. A photoconductive element was prepared by dispersing V in an equal weight of polystyrene dissolved in (ClCH₂)₂ coating the solution on an Al slide with a doctor blade set at 1 mil wet gap, exposing to a 40-W incandescent lamp at 30 in. for 0.1 sec and using a pos. transparency as a document to be copied. The electrostatic image formed was developed with a neg. charge toner (Xerox 914) across the photoconductive element. Using the Xerox Model D Processor, the toner image was transferred to paper by spraying pos. charges on the back of the paper. After transfer of the toner image, the toner was fused to the paper on a hot plate to yield a high quality copy of the document with high contrast, high image d., and no background.

IT 27052-55-7P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 27052-55-7 HCAPLUS

CN Benzo[1,2-d:5,4-d']bisthiazole, 2,6-bis[p-(dimethylamino)styryl]- (8CI)
(CA INDEX NAME)



L25 ANSWER 84 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1969:88821 HCAPLUS

DOCUMENT NUMBER: 70:88821

TITLE: Benzoxazole fluorescent brightening agents

INVENTOR(S): Okada, Hitoshi; Imahori, Seiichi; Hayakashi, Masayuki

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 4 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

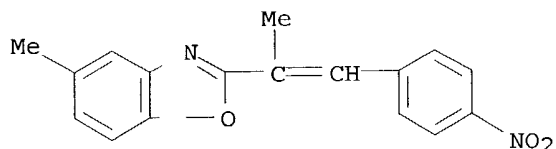
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 43022790	B4	19681001	JP	19650220 <--

AB A mixture of 16.1 g. 2-ethyl-5-methylbenzoxazole (I) and 15.1 g. p-O₂NC₆H₄CHO was heated for 8 hrs. at 170-80° with apprx.20% ZnCl₂ to give 28.3 g. yellow 2-(p-nitro-α-methylstyryl)-5-methylbenzoxazole, m. 158-60° (HCONMe₂), reduced to the p-amino compound (II), m. 143-5°. II was diazotized, coupled with 4,2-H₂N(MeO)C₆H₃Me, and the product oxidized to give 2-[p-(5-methoxy-6-methyl-2-benzotriazolyl)-α-methylstyryl]-5-methylbenzoxazole (III), m. 238-40°. III fluoresces blue-violet in Me₂CO and is useful as a whitener for synthetic fibers. Similarly, I and p-PhCH:CHC₆H₄CHO were condensed to give fluorescent 2-(p-styryl-α-methylstyryl)-5-methylbenzoxazole, m. 161-3° (1:3 dioxane-EtOH).

IT 20514-30-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

RN 20514-30-1 HCAPLUS

CN Benzoxazole, 5-methyl-2-(α-methyl-p-nitrostyryl)- (8CI) (CA INDEX NAME)



L25 ANSWER 87 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1967:474484 HCAPLUS

DOCUMENT NUMBER: 67:74484

TITLE: Dyes for photographic emulsions

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.

SOURCE: Belg., 15 pp.

CODEN: BEXXAL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 669133		19651231	BE	<--
PRIORITY APPLN. INFO.:			JP	19640902 <--

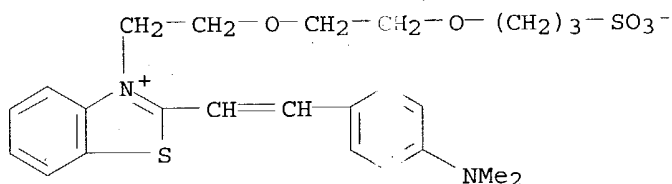
GI For diagram(s), see printed CA Issue.

AB Photographic emulsions were prepared by using as sensitizing dyes, compds. of the general formulas I or II, where Y is an aromatic or heterocyclic residue. Thus, a mixture of 4 g. I (R = H, Y = Me) (III), 1.5 g. 4-Me₂NC₆H₄CHO, 2 ml. NEt₃, and 100 ml. MeOH was refluxed for 1 hr., the solvent distilled, the dye precipitated with Et₂O, and washed with H₂O to give 0.5 g. I (R = H, Y = CH=CHC₆H₄NMe₂-4), m. 283° (MeOH), λ_{maximum} 530 mμ. Incorporated at 36 mg./kg. in Ag iodobromide emulsion (molar ratio AgI/AgBr 7:93), the dye showed maximum sensitization at 500-680 mμ (not clear). Similarly, other dyes were prepared (components, m.p., λ_{maximum}, and sensitization maximum in mμ given): III, 1-ethyl-2-(ethylthio)-6-methylquinolinium Et sulfate, 270°, 488, 532; III, 5-(acetanilidomethylene)-3-ethylrhodanine, 280°, 527, 600; III (2 mols.), HC(OEt)₃, 233°, 558, 605; III, 2-[β-(ethylmercapto)-β-methylvinyl]-3-ethylbenzothiazolium iodide, 259°, 545, 630; I (R = Cl, Y = Me) (2 mols.), EtC(OEt)₃, 251°, 552, 656; III, 1-ethyl-2-(methylmercapto)quinolinium Me sulfate, 105°, 495-528, 580; II (Y = Me) (2 mols.), HC(OEt)₃, 277°, 518, 580 (in AgCl/AgBr, sensitization maximum 583 mμ).

IT 16250-14-9P
RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of)

RN 16250-14-9 HCAPLUS

CN Benzothiazolium, 2-[p-(dimethylamino)styryl]-3-[2-[2-(3-sulfopropoxy)ethoxy]ethyl]-, hydroxide, inner salt (8CI) (CA INDEX NAME)



L25 ANSWER 89 OF 89 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1967:19846 HCAPLUS

DOCUMENT NUMBER: 66:19846

TITLE: Photographic sensitizers

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.

SOURCE: Belg., 17 pp:
CODEN: BEXXAL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 668014		19651201		<--

Searched by P. Ruppel

PRIORITY APPLN. INFO.:

JP

19640806 <--

GI For diagram(s), see printed CA Issue.

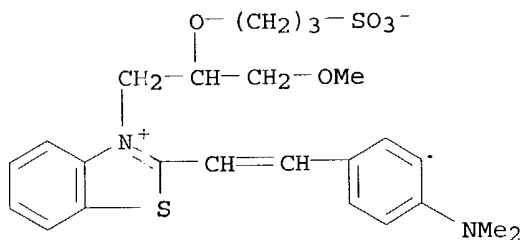
AB Methine photographic sensitizers are prepared. Thus, a mixture of 2.0 g. I, 0.8 g. 4-Me₂NC₆H₄CHO, 50 ml. MeOH, and 1 ml. Et₃N was refluxed 1 hr., cooled, precipitated with Et₂O, and washed with H₂O to give 0.3 g. II (Z = 4-Me₂NC₆H₄CH:CH), m. 261° (MeOH), λ_{maximum} 528 mμ. Similarly prepared were II (Z = 1-ethyl-6-methyl-2(1H)-quinolyldenemethyl) and III, m. 297° and 310°, λ_{maximum} 488 and 527 mμ, maximum sensitivity 526 (532 mμ in AgBr-AgI emulsion) and 590 mμ in AgCl-AgBr emulsion, resp. Similarly prepared were compds. of the general formula IV (R, R₁, R₂, R₃, X, Y, Z, m.p., λ_{maximum} (mμ), maximum sensitivity (mμ), and emulsion given): H, H, H, H, S, H, Na, 248°, 559, 595 (AgCl-AgBr) and 608 (AgBr-AgI); H, H, H, H, S, Me, Na, 261°, 544, 595 (AgCl-AgBr) and 598 (AgBr-AgI); H, Cl, H, Cl, S, Et, Na, 286°, 552, 658 (AgBr-AgI); Cl, Cl, Cl, Cl, N₂Et, H, H, 517° (?), 517, 583 (AgCl-AgBr) and 582 (AgBr-AgI).

IT 14813-43-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 14813-43-5 HCAPLUS

CN Benzothiazolium, 2-[p-(dimethylamino)styryl]-3-[3-methoxy-2-(3-sulfopropoxy)propyl]-, hydroxide, inner salt (8CI) (CA INDEX NAME)



=> b home

FILE 'HOME' ENTERED AT 13:18:05 ON 26 OCT 2004

=>

=> b reg

FILE 'REGISTRY' ENTERED AT 13:19:09 ON 26 OCT 2004

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STRUCTURE FILE UPDATES: 25 OCT 2004 HIGHEST RN 769101-30-6

DICTIONARY FILE UPDATES: 25 OCT 2004 HIGHEST RN 769101-30-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

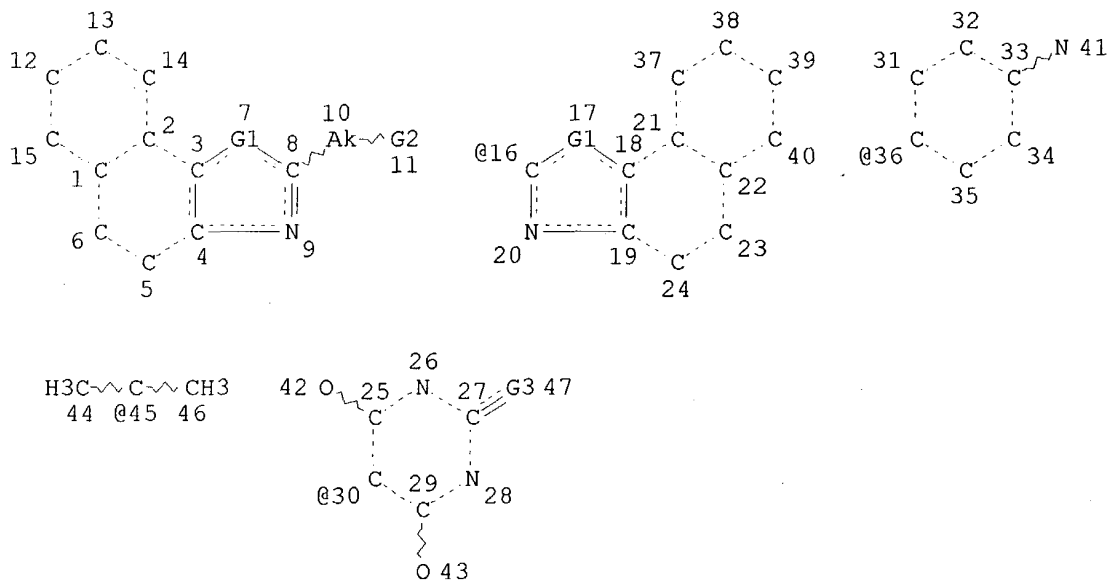
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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> => d que 142

L36 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

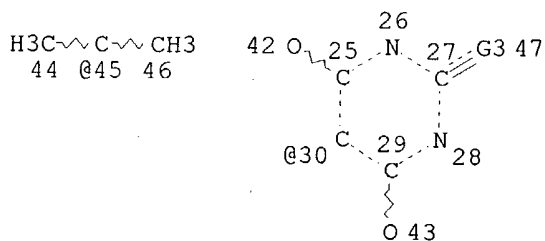
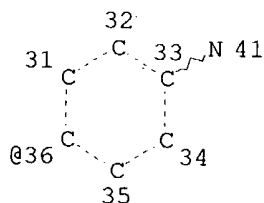
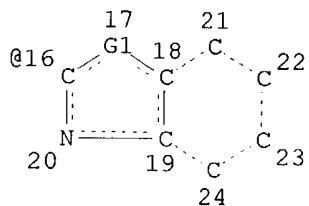
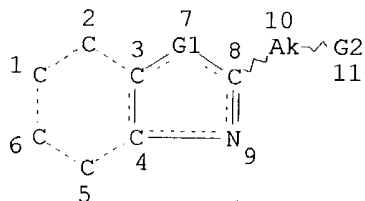
Searched by P. Ruppel

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L37 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 39

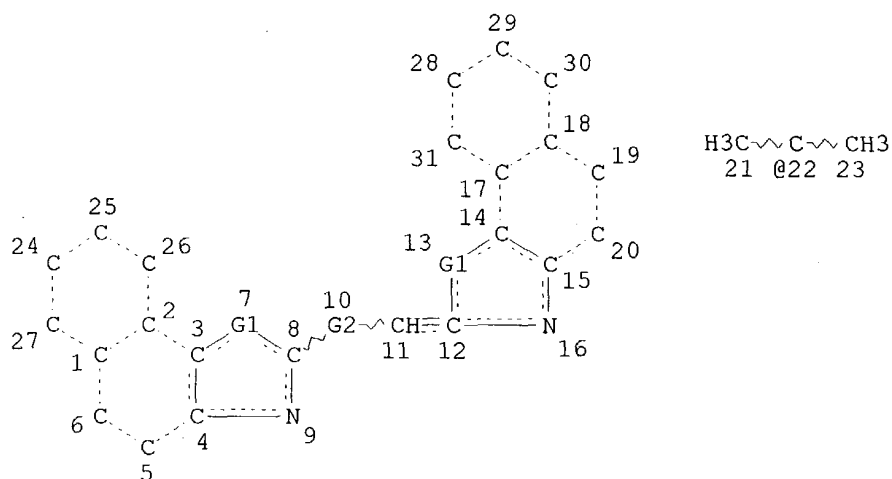
STEREO ATTRIBUTES: NONE

L38 (1427)SEA FILE=REGISTRY SSS FUL L36

L39 (19932)SEA FILE=REGISTRY SSS FUL L37

L40 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L38 OR L39) AND 1/NC

L41 STR



VAR G1=S/O/22
 REP G2=(2-8) C
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE
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 FILE 'HOME' ENTERED AT 13:20:04 ON 26 OCT 2004

=>

=> b reg

FILE 'REGISTRY' ENTERED AT 13:20:14 ON 26 OCT 2004

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STRUCTURE FILE UPDATES: 25 OCT 2004 HIGHEST RN 769101-30-6

DICTIONARY FILE UPDATES: 25 OCT 2004 HIGHEST RN 769101-30-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

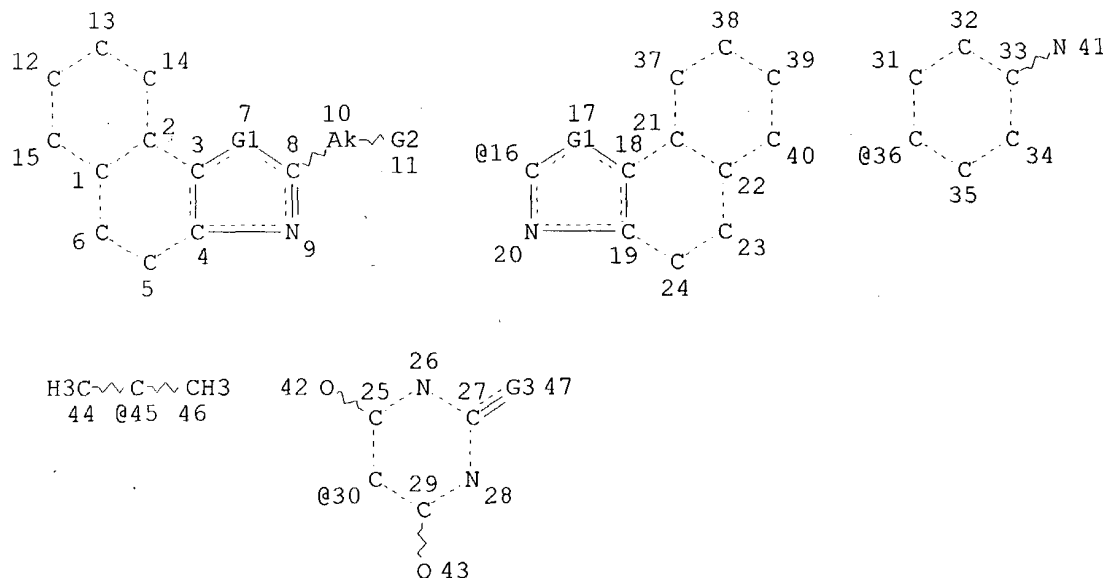
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d que 149

L43 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

Searched by P. Ruppel

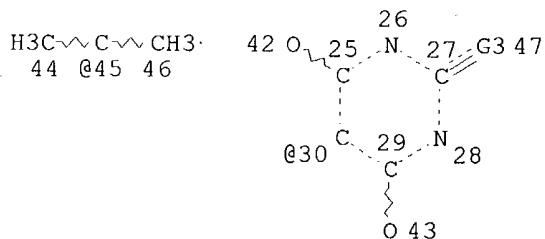
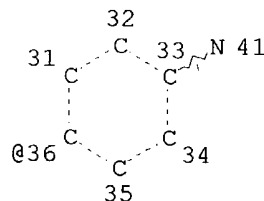
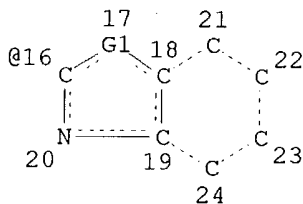
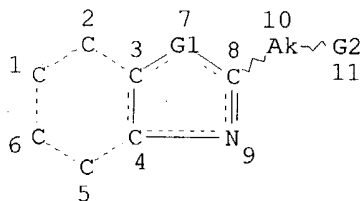
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L44 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

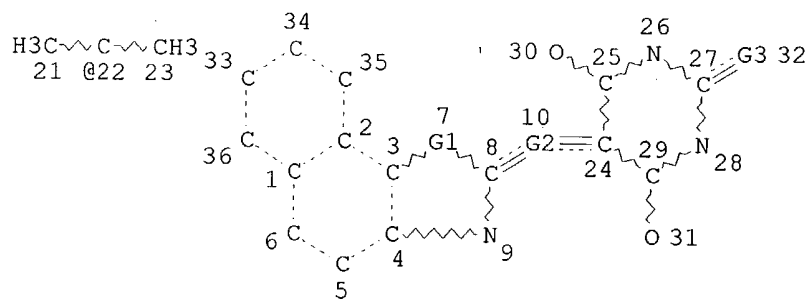
STEREO ATTRIBUTES: NONE

L45 (1427)SEA FILE=REGISTRY SSS FUL L43

L46 (19932)SEA FILE=REGISTRY SSS FUL L44

L47 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L45 OR L46) AND 1/NC

L48 STR



VAR G1=S/O/22

REP G2=(2-8) C

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 30

CONNECT IS E1 RC AT 31

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

L49 0 SEA FILE=REGISTRY SUB=L47 SSS FUL L48

=> b home

FILE 'HOME' ENTERED AT 13:20:21 ON 26 OCT 2004

=>

=> b hcaplus

FILE 'HCAPLUS' ENTERED AT 13:18:24 ON 26 OCT 2004

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FILE COVERS 1907 - 26 Oct 2004 VOL 141 ISS 18

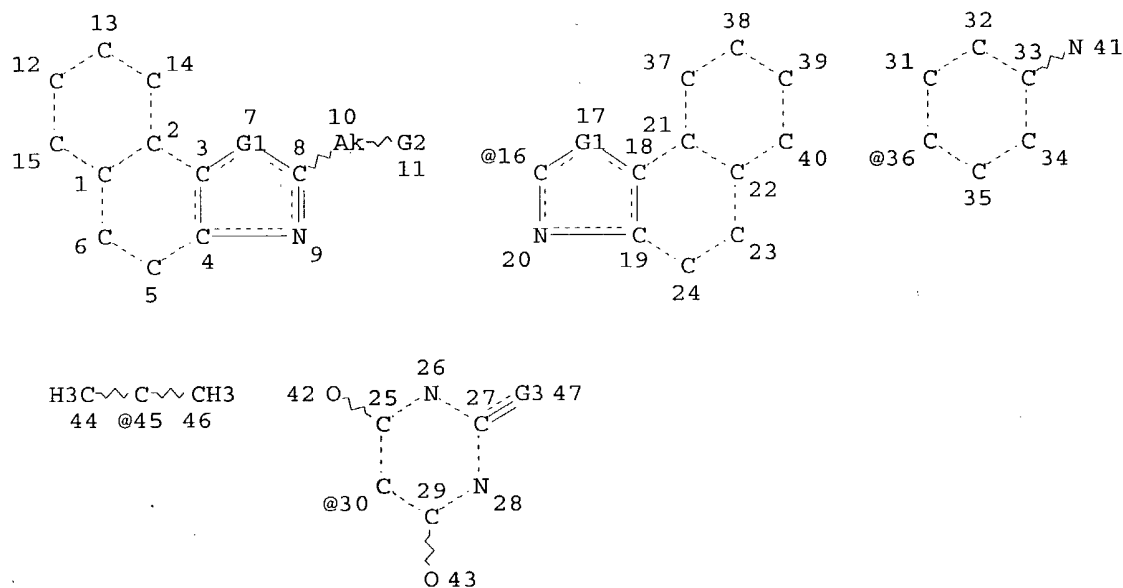
FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que 135

L26 STR



VAR G1=S/O/45 .

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

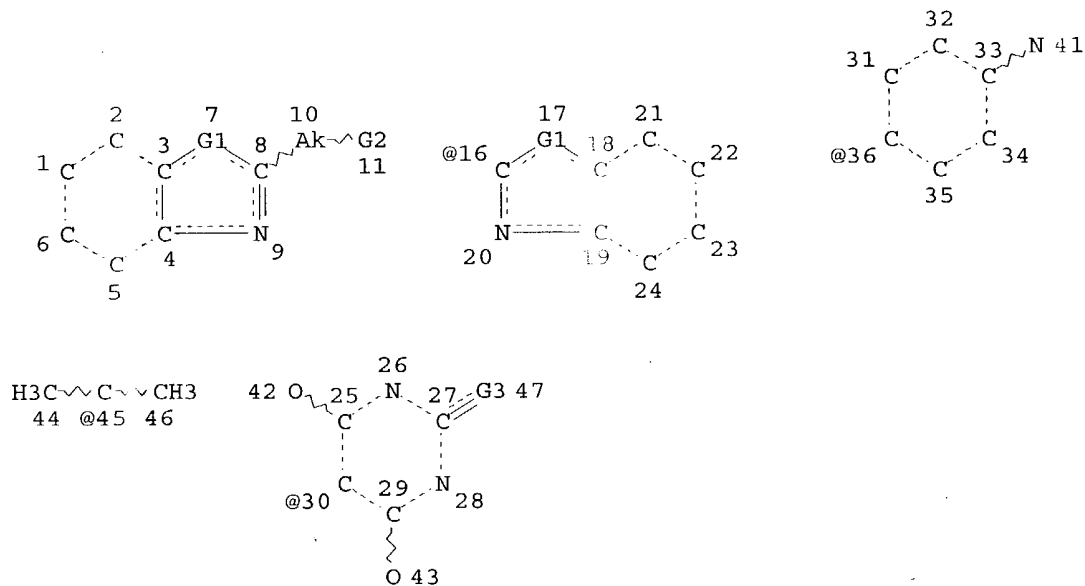
Searched by P. Ruppel

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L27 STR



VAR G1=S/O/45

VAR G2=16/36/30

VAR G3=O/S

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 42

CONNECT IS E1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 39

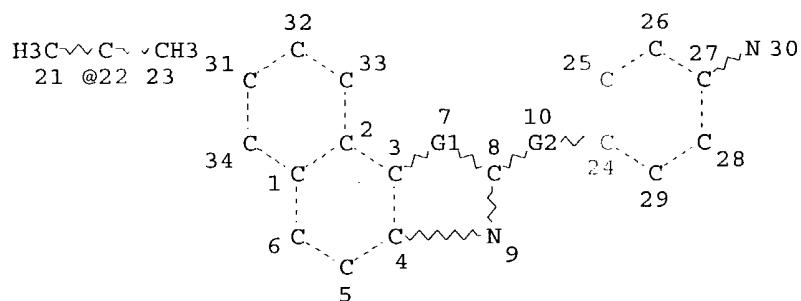
STEREO ATTRIBUTES: NONE

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L29 (19932)SEA FILE=REGISTRY SSS FUL L27

L30 (9350)SEA FILE=REGISTRY ABB=ON PLU=ON (L28 OR L29) AND 1/NC

L31 STR



VAR G1=S/O/22
 REP G2=(2-8) C
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

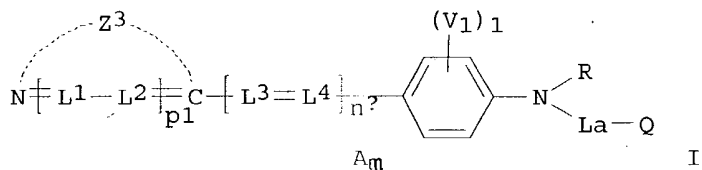
L32 (56)SEA FILE=REGISTRY SUB=L30 SSS FUL L31
 L33 (25)SEA FILE=HCAPLUS ABB=ON PLU=ON L32
 L34 (21)SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND (PY<=2000 OR PRY<=2000
 OR AY<=2000)
 L35 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND P/DT

=> d ibib abs hitstr l35 1-15

L35 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1999:439857 HCAPLUS
 DOCUMENT NUMBER: 131:122876
 TITLE: Silver halide photographic material
 INVENTOR(S): Hioki, Takanori
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11190889	A2	19990713	JP 1997-358247	19971225 <--
PRIORITY APPLN. INFO.:			JP 1997-358247	19971225 <--
OTHER SOURCE(S):	MARPAT	131:122876		

GI



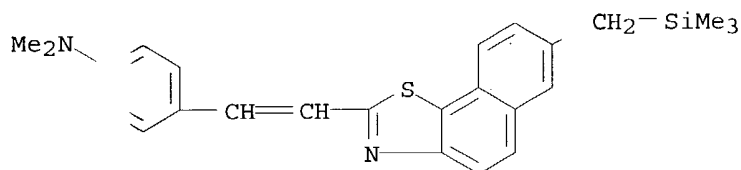
AB A silver halide photog. material showing an improved photosensitivity contains a dye represented by the formula I (Z = an atomic group necessary for forming a 5- or 6-membered ring; L1-4 = a methine group; V = a monovalent substituent group; l = an integer of 0-4; p = 0 or 1; n = an integer of 0-3; R = H, alkyl, aryl, or heterocyclyl; La = methylene; Q = M(R1)3 where M = Si, Sn, or Ge and R1 = alkyl, aryl, or heterocyclyl; A = an ion; m = an integer of 0-10 necessary for neutralization of the elec. charge of the dye).

IT 232928-45-9

PL: TEM (Technical or engineered material use); USES (Uses)
(spectral photog. sensitizer)

RN 232928-45-9 HCAPLUS

CN Benzenamine, N,N-dimethyl-4-[2-[7-[(trimethylsilyl)methyl]naphtho[2,1-d]thiazol-2-yl]ethenyl]- (9CI) (CA INDEX NAME)



L35 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:417675 HCAPLUS

DOCUMENT NUMBER: 119:17675

TITLE: Dispersion type electroluminescent devices

INVENTOR(S): Mori, Yoshihiko; Endo, Hiroshi

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04212286	A2	19920803	JP 1991-51106	19910315 <--
JP 3069139	B2	20000724		
EP 532798	A1	19930324	EP 1991-202363	19910916 <--
EP 532798	B1	19951206		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5281489	A	19940125	US 1991-760190	19910916 <--
CA 2051758	AA	19930319	CA 1991-2051758	19910918 <--
CA 2051758	C	19961105		
PRIORITY APPLN. INFO.:			JP 1990-64260	A1 19900316 <--
			JP 1991-16329	A1 19910207 <--
			JP 1991-17519	A1 19910208 <--

AB The device has an organic luminescent layer from luminescent material(s), compd(s). which transfer and supply pos. holes from the anode to the luminescent material(s), and compd(s) which transfer and supply electrons to the luminescent material(s).

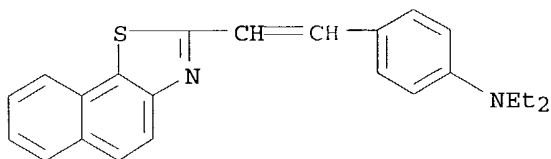
IT 147686-71-3

RL: USES (Uses)

(dispersion type electroluminescent devices with fluorescent materials from)

RN 147686-71-3 HCAPLUS

CN Benzenamine, N,N-diethyl-4-(2-naphtho[2,1-d]thiazol-2-ylethenyl)- (9CI)
(CA INDEX NAME)



L35 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:191720 HCAPLUS

DOCUMENT NUMBER: 118:191720

TITLE: Preparation of heterocyclylvinyl-substituted triphenylamine derivatives

INVENTOR(S): Araya, Sukekazu; Suzuki, Shigeo; Hosoya, Akira; Kawanishi, Tsuneaki; Kaneshiro, Tokuyuki; Kageyama, Akira; Katsuya, Yasuo

PATENT ASSIGNEE(S): Hitachi, Ltd., Japan; Hitachi Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

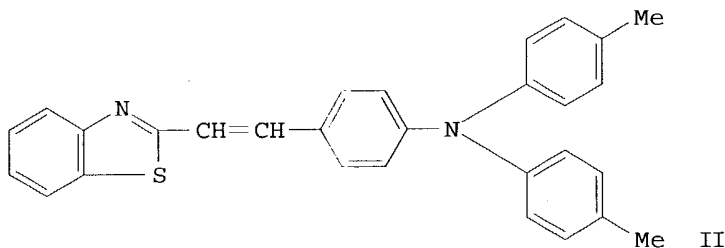
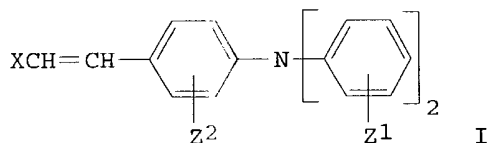
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04253962	A2	19920909	JP 1991-15220	19910206 <--
PRIORITY APPLN. INFO.:			JP 1991-15220	19910206 <--
OTHER SOURCE(S):	MARPAT 118:191720			
GI				

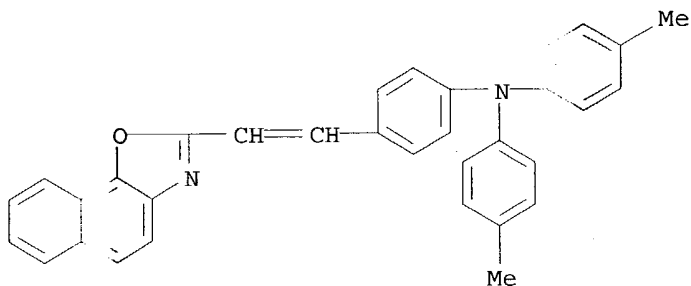


AB The title compds. [I; X = (benzene- or naphthalene-condensed) oxazole, thiazole, imidazole, quinoline residue; Z1, Z2 = H, (substituted) alkyl, alkoxy, aryl], useful as materials for electrophotog. photoconductors, are prepared Bu4N+Br- (3.0 g) was added to a solution of 11.0 g 2-methylbenzothiazole and 20.0 g p-[(p-MeC6H4)2N]C6H4CHO in C6H6, followed by 50% NaOH, and the mixture was heated at 80° to give 15.5 g II, which was incorporated into a charge-transporting layer of a photoconductor to show superior electrophotog. properties.

IT 147002-11-7P 147002-12-8P

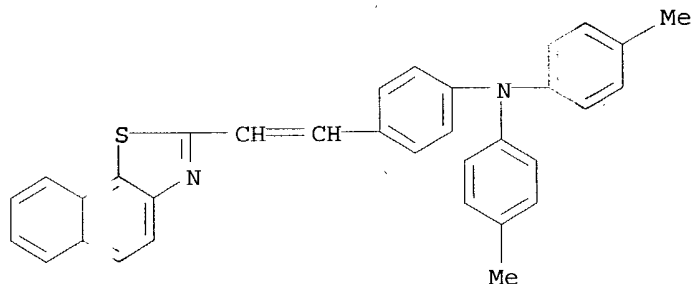
EL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as material for electrophotog. photoconductor)

RN 147002-11-7 HCAPLUS

CN Benzenamine, N,N-bis(4-methylphenyl)-4-(2-naphth[2,1-d]oxazol-2-ylethenyl)-
(9CI) (CA INDEX NAME)

RN 147002-12-8 HCAPLUS

CN Benzenamine, N,N-bis(4-methylphenyl)-4-(2-naphtho[2,1-d]thiazol-2-ylethenyl)- (9CI) (CA INDEX NAME)



L35 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:153734 HCAPLUS

DOCUMENT NUMBER: 114:153734

TITLE: Organic electroluminescent devices

INVENTOR(S): Mori, Yoshihiko; Hayashi, Yoshio

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

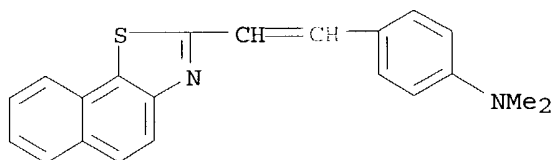
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02195683	A2	19900802	JP 1989-11888	19890123 <--
PRIORITY APPLN. INFO.:			JP 1989-11888	19890123 <--

AB In the title devices comprising anodes, hole transportation layers, light-emitting layers (A), and cathodes (B), either or both electrodes are transparent, and hole-stopping layers having a primary oxidation potential 0.1 V larger than that of A are formed between A and B. Devices showing high luminance by low voltage application are prepared

Searched by P. Ruppel

IT 40442-44-2
 RL: PRP (Properties)
 (light-emitting layer, in electroluminescent devices having
 hole-stopping layers)
 RN 40442-44-2 HCAPLUS
 CN Benzenamine, N,N-dimethyl-4-(2-naphtho[2,1-d]thiazol-2-ylethenyl) - (9CI)
 (CA INDEX NAME)



L35 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1984:512543 HCAPLUS
 DOCUMENT NUMBER: 101:112543
 TITLE: Photopolymerizable compositions
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59056403	A2	19840331	JP 1982-168088	19820927 <--
JP 03063562	B4	19911001		
AU 8318536	A1	19840405	AU 1983-18536	19830830 <--
AU 551827	B2	19860515		
CA 1222091	A1	19870519	CA 1983-437484	19830923 <--
EP 107792	A1	19840509	EP 1983-109584	19830926 <--
EP 107792	B1	19851227		
R: DE, FR, GB, NL				
US 4985470	A	19910115	US 1986-880120	19860630 <--
PRIORITY APPLN. INFO.:			JP 1982-168088	19820927 <--

GI For diagram(s), see printed CA Issue.

AB The title compns. are composed of (1) an addition-polymerizable compound having ≥ 1 ethylenic double bond and (2) a photopolymer initiating system comprising (a) a p-(dialkylamino)styrene derivative I (R, R1 = alkyl; X = O, S, CH:CH; A = benzene ring, naphthalene ring; n = 1, 2), (b) a hexaarylbiimidazole, and (c) a thiol II (X1 = O, S, NH, CONH). The compns. show high sensitivity to visible light. Thus, poly(Me methacrylate) was partially (20 mol%) hydrolyzed to obtain methacrylic acid-Me methacrylate copolymer, which (1 g) was mixed with 1 g trimethylolpropane triacrylate [15625-89-5], 6 mg p-methoxyphenol, and 6 mg Victoria Pure Blue BOH and dissolved in 18 g MEK to prepare a solution, in which 2-[p-(diethylamino)styryl]benzo[4,5]benzothiazole [72924-70-0] 2.5, 2,2'-bis(o-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole [1707-68-2] 5, and 2-mercaptobenzothiazole [149-30-4] 5% were dissolved, and coated on Al sheet, which was dried at 80° for 5 min to obtain a film 2 μ thick. Poly(vinyl alc.) aqueous solution was coated on the film surface and dried to prepare a topcoat layer (3 μ thick), which was exposed to a xenon lamp (490 nm) for 10 s and developed with an aqueous solution of 9% Bu

Cellulosolve and 1% Na silicate to obtain photocured images showing very high resolution

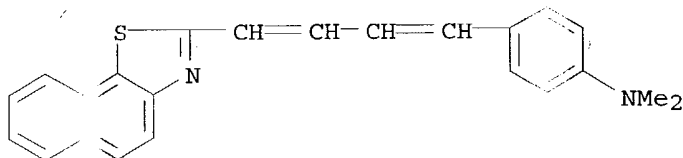
IT 87220-58-4

RL: USES (Uses)

(photochem. crosslinking catalysts containing, for acrylic-poly(vinyl alc.) coatings)

RN 87220-58-4 HCAPLUS

CN Benzenamine, N,N-dimethyl-4-(4-naphtho[2,1-d]thiazol-2-yl-1,3-butadienyl)-(9CI) (CA INDEX NAME)



L35 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:567041 HCAPLUS

DOCUMENT NUMBER: 99:167041

TITLE: Photopolymerizable composition

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58019315	A2	19830204	JP 1981-118339	19810728 <--
JP 02030321	B4	19900705		

PRIORITY APPLN. INFO.: JP 1981-118339 19810728 <--

GI For diagram(s), see printed CA Issue.

AB In a photopolymerizable composition consisting of an addition polymerizable compound

containing ≥ 1 ethylenic double bond and a photopolymerizable initiator; the latter is comprised of a p-dialkylaminocinnamylidene derivative (I; R = alkyl; R1 = H, alkyl; A = benzene or naphthalene ring moiety condensed on the thiazole ring) and a hexaarylbiimidazole, such as 2,2'-bis(o-chlorophenyl)-4,4',5,5'-tetrphenylbiimidazole. The polymer shows high sensitivity towards visible light and is useful in printing platemaking, integrated circuit fabrication, image duplication, paints, adhesives, and the like.

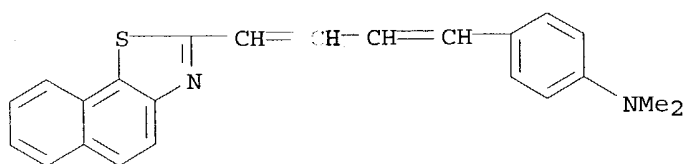
IT 87220-58-4

RL: USES (Uses)

(photoinitiator, for photopolymerizable composition)

RN 87220-58-4 HCAPLUS

CN Benzenamine, N,N-dimethyl-4-(4-naphtho[2,1-d]thiazol-2-yl-1,3-butadienyl)-(9CI) (CA INDEX NAME)



L35 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:97800 HCAPLUS

DOCUMENT NUMBER: 84:97800

TITLE: Photographic light-sensitive silver halide materials with back layer

INVENTOR(S): Kobayashi, Teruo; Sueyoshi, Tohru; Sugiyama, Masatoshi; Sawaguchi, Hiroshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Ger. Offen., 59 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2517143	A1	19751030	DE 1975-2517143	19750418 <--
JP 50137530	A2	19751031	JP 1974-43296	19740419 <--
JP 57046056	B4	19821001		
US 3955984	A	19760511	US 1975-569434	19750418 <--
GB 1485232	A	19770908	GB 1975-16240	19750418 <--
			JP 1974-43296	19740419 <--

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

AB Styryl dyes (I; R = Me, Et; R' = NMe(CH₂)₂SO₃⁻, O(CH₂)₃SO₃⁻; n = 1, 2) are described for use in back layers (antihalation layers) of photog. materials. Antihalation layers containing these dyes have an excellent absorbance, do not adversely affect the photog. properties of the emulsion layer, even when in direct contact with the emulsion layer, and do not contaminate the developer or cleaning solns. containing low mol. weight chlorinated hydrocarbons. Thus, a subbed glass support was coated with an orthochromatically sensitized gelatin-Ag(Br, I) emulsion (1 mole % I-; average particle size 0.06 μ) at 4 g/m². On the side opposite to the emulsion layer, was then coated with a solution containing an acrylic acid-Me methacrylate

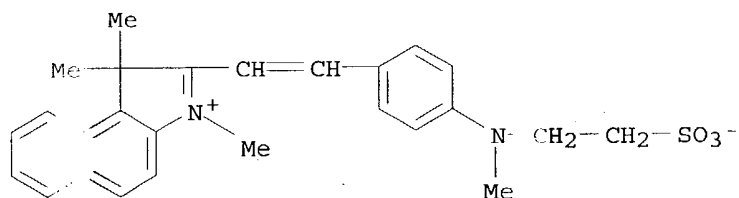
(1:1) polymer 20, I (R = Me; R' = NMe(CH₂)₂SO₃⁻; n = 1) (II) 7 g, and MeOH 800 ml at 1 μm/min. A portion of the plate was then immersed for 2 min in 1,1,1-trichloroethane of 50° and ultrasonically treated (28 kHz, 50 W). No coloring of the solution by II was observed vs. a pale orange for a control containing III.

IT 58464-19-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 58464-19-0 HCAPLUS

CN 1H-Benz[e]indolium, 1,1,3-trimethyl-2-[2-[4-[methyl(2-sulfoethyl)amino]phenyl]ethenyl]-, inner salt (9CI) (CA INDEX NAME)



L35 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1975:533402 HCAPLUS

DOCUMENT NUMBER: 83:133402

TITLE: Styryl and butadienyl dyes

INVENTOR(S): Kobayashi, Teruo; Sugiyama, Masatoshi; Sawaguchi, Hiroshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50059418	A2	19750522	JP 1973-108799	19730927 <--
JP 59011619	B4	19840316		
US 3996215	A	19761207	US 1974-510252	19740927 <--
GB 1466440	A	19770309	GB 1974-42191	19740927 <--
			JP 1973-108799	19730927 <--

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

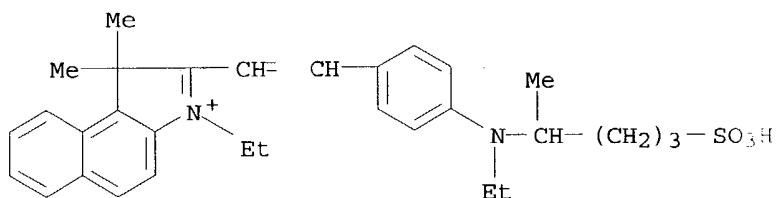
AB Styryl or butadienyl dyes I [R = lower alkyl, optionally substituted lower sulfoalkyl or sulfoalkenyl, lower carboxyalkyl; A is a 5- or 6-membered heterocyclic ring; m, n = 0, 1; R1 = H, Me, Ph; R2 = OR4, NR5R6; R3 = H, lower alkyl, OH, alkoxy, halogen, NO2, CO2H, optionally substituted acylamino, alkoxy-carbonylamino, alkylsulfonylamino, alkylthio; R4 = optionally substituted lower sulfoalkyl; R5, R6 = H, optionally substituted alkyl, aralkyl, or aryl, arylsulfonyl, Ac (there is ≥ 1 SO3H in R5 and/or R6); X- is an anion] are prepared by condensing II with 4, x-R2(R3)C6H3(CH:CH)mCHO. For example, 4-OCHC6H4NMeCH2CH(OH)CH2SO3Na [56405-75-5] was condensed with 3-ethyl-2-methyl-4-(p-sulphophenyl)thiazolium p-toluenesulfonate [56405-34-6] in EtOH containing piperazine to give I [R = Et, R1 = R3 = H, R2 = NMeCH2CH(OH)CH2SO3Na, m = n = 0, A = 4-(4-sulphophenyl)thiazole] [56405-74-4] as orange crystals, giving an orange aqueous solution with λ_{\max} 492 m μ . Similarly prepared were 23 addnl. I, useful as filter dyes and antihalation dyes for photog.

IT 56436-06-7P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 56436-06-7 HCAPLUS

CN 1H-Benz[e]indolium, 3-ethyl-2-[2-[4-[ethyl(1-methyl-4-sulphobutyl)amino]phenyl]ethenyl]-1,1-dimethylsulfo-, inner salt (9CI) (CA INDEX NAME)

D1-SO₃⁻

L35 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1974:408363 HCAPLUS

DOCUMENT NUMBER: 81:8363

TITLE: Sensitized photosensitive silver halide composition

INVENTOR(S): Shiba, Keisuke; Mihara, Yuji; Ohkubo, Kinji; Masuda, Takao; Tsuji, Koji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.

SOURCE: Ger. Offen., 68 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2328868	A1	19731213	DE 1973-2328868	19730606 <--
JP 49017719	A2	19740216	JP 1972-56332	19720606 <--
JP 57046052	B4	19821001		
GB 1422057	A	19760121	GB 1973-27094	19730606 <--
			JP 1972-56332	19720606 <--

PRIORITY APPLN. INFO.:

AB Photog. emulsions containing >30 mole % AgI can be spectrally sensitized efficiently with dyes having an oxidation potential of <1 V and a difference between the oxidation and reduction potentials of >2 V. Redox potentials of 27 suitable dyes are given. These dyes are especially useful in heat-developable systems, where they also give good contrast. In such systems most of the Ag is present as an organic salt, with an inorg. iodide added to form the light-sensitive AgI. Thus, 100 ml. of a solution containing 20.5 g Hg(NO₃)₂

(pH

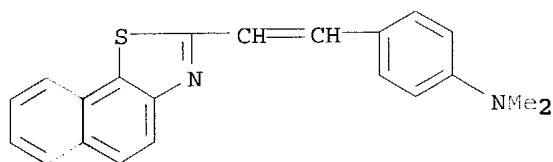
2 with HNO₃) was added dropwise to 100 ml. of 11 g lauric acid in BuOAc at 10°. Then 50 ml. of 1 mole % [Ag(NH₃)₂]NO₃ was added. The Ag laurate was washed with H₂O and with Me₂CO, and then dispersed in 120 g of 15% poly(vinyl butyral) in iso-PrOH. To 20 g of this dispersion, the following were added: 1 ml. of 3.2% NH₄I in MeOH, 1 ml. of 0.1% of the betaine form of 5,5'-diphenyl-3,3'-disulfopropyl-9-ethyloxa-carbocyanine (I) (oxidation potential of 0.878 V and reduction potential of -1.274 V) in MeOH, 1 ml. of 25% phthalazinone in Me Cellosolve, and 2 ml. of 70% p-phenylphenol in Me Cellosolve. This dispersion was coated on polyester support at a coverage of 1 g Ag/m². After drying at 50° for 30 min an overcoat of 15% (85:15) vinyl chloride-vinyl acetate polymer in THF was applied and dried. The system was exposed through a negative to 250,-000 lux from a W lamp and developed at 120° for 20 sec to give a good positive. A spectrogram showed the expected green sensitivity. A I-free control gave a blurred, indistinct, and mottled image.

IT 40442-44-2

RL: USES (Uses)

(photographic sensitizer, for heat-developable silver halide emulsions)

RN 40442-44-2 HCAPLUS

CN Benzenamine, N,N-dimethyl-4 (2-naphtho[2,1-d]thiazol-2-yl-ethenyl)- (9CI)
(CA INDEX NAME)

L35 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:78118 HCAPLUS

DOCUMENT NUMBER: 78:78118

TITLE: Sensitizing dyes for photographic silver halide emulsions

INVENTOR(S): Nakazawa, Yoshiyuki; Nakamura, Yasuharu; Sueyoshi, Tohru; Sato, Akira

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.

SOURCE: Ger. Offen., 20 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2147586	A	19720413	DE 1971-2147586	19710923 <--
JP 49046931	B4	19741212	JP 1970-83648	19700924 <--
FR 2108387	A5	19720519	FR 1971-34031	19710922 <--
CA 989237	A1	19760518	CA 1971-123408	19710922 <--
			JP 1970-83648	19700924 <--

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

AB Styryl sensitizing dyes [I; Z = the necessary atoms to form a pyridine, oxazole, benzoxazole, naphthoxazole, benzimidazole, naphthoimidazole, thiazole, selenazole, nucleus; Q = -CH:CH-, -CR:CHCH:CH- (R = H, CN); R1, R2 = Me, Et] which do not exhibit the Capri blue effect produce an increase in the sensitivity in the region of Ag halide absorption in Ag

=> b hcaplus

FILE 'HCAPLUS' ENTERED AT 13:42:55 ON 26 OCT 2004

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FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

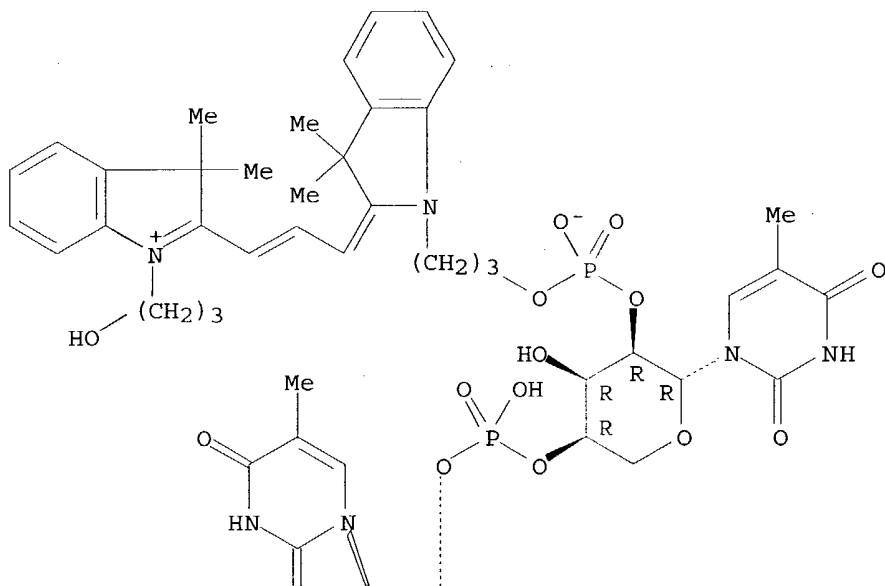
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L50 STR

PAGE 1-A



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VAR G2=16/36/30

VAR G3=O/S

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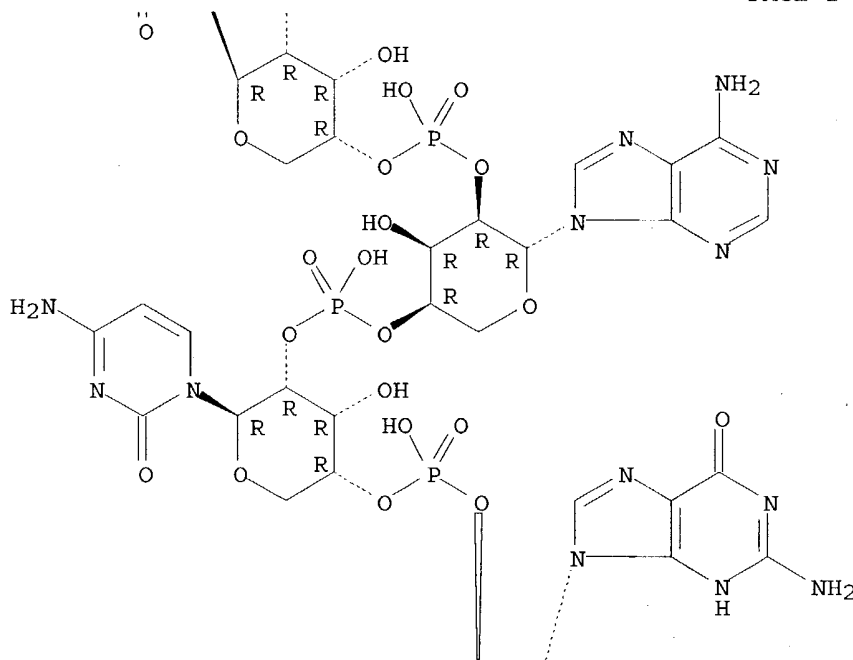
Searched by P. Ruppel

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 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M2-X9 C AT 10

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE
 L51 (1414)SEA FILE=REGISTRY SSS FUL L50
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PAGE 2-A



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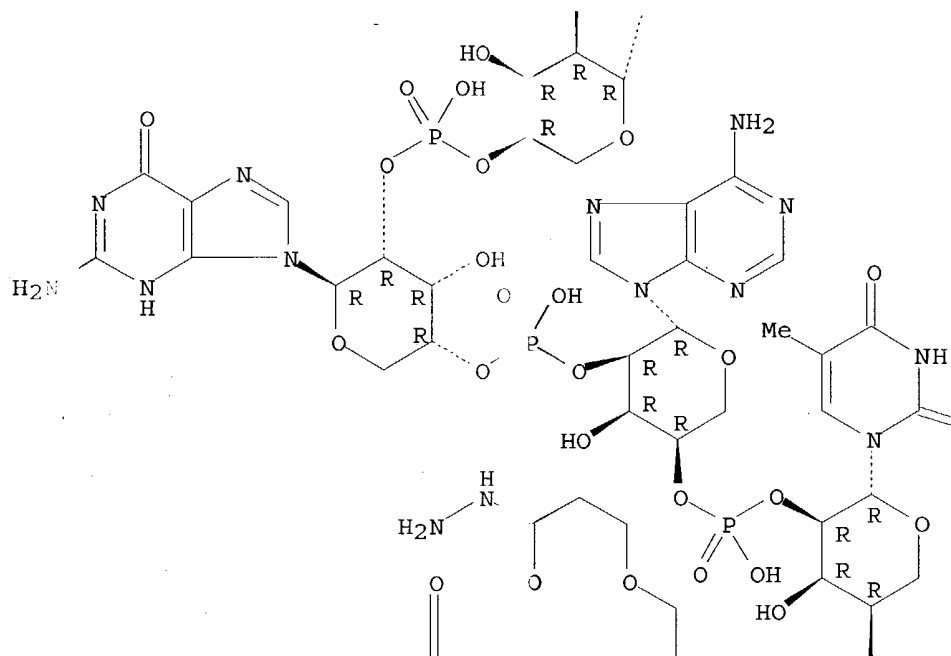
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 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M2-X9 C AT 10

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STEREO ATTRIBUTES: NONE
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 L54 (9042)SEA FILE=REGISTRY ABB=ON PLU=ON L53 AND 1/NC
 L55 (9906)SEA FILE=REGISTRY ABB=ON PLU=ON L51 OR L54
 L56 STR

PAGE 3-A



NODE ATTRIBUTES:
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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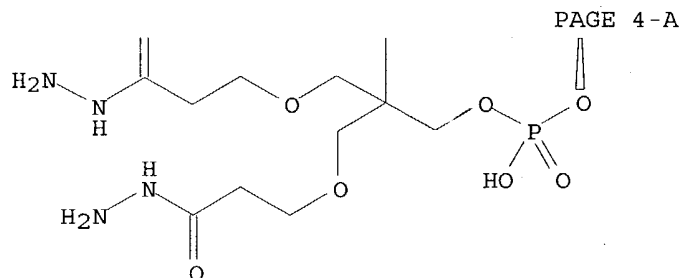
STEREO ATTRIBUTES: NONE
 L57 STR

PAGE 3-B

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 DEFAULT ECLEVEL IS LIMITED

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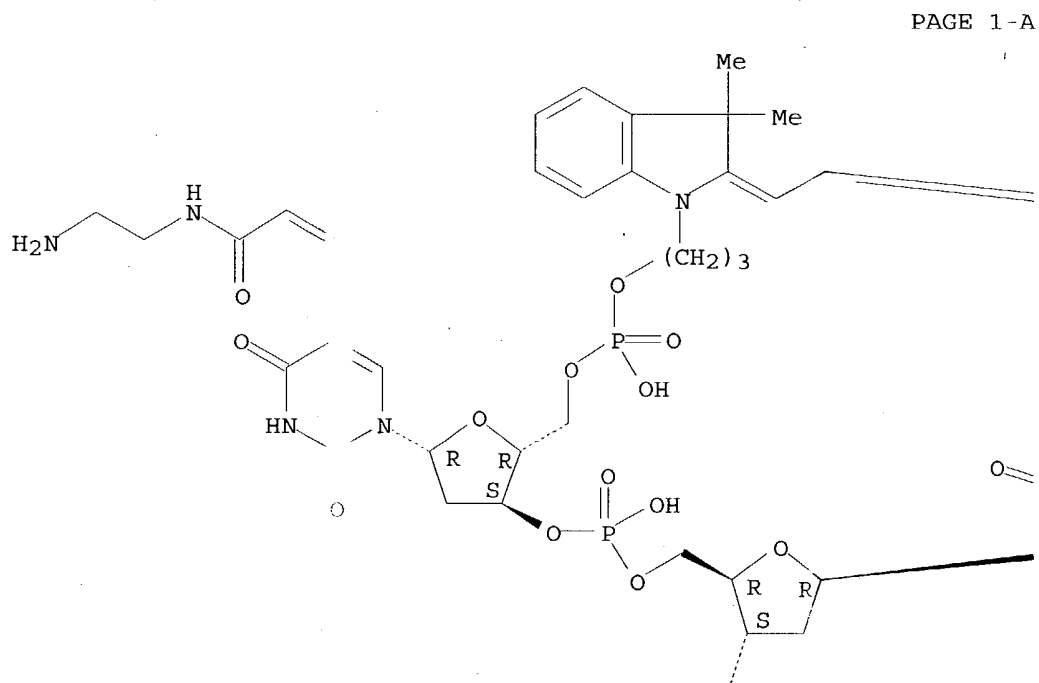
STEREO ATTRIBUTES: NONE
L58 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L59 STR



NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L60 (112333)SEA FILE=REGISTRY SS FUL L56
 L61 (76069)SEA FILE=REGISTRY SS FUL L57
 L62 (54676)SEA FILE=REGISTRY SS FUL L58
 L63 (124241)SEA FILE=REGISTRY SS FUL L59
 L64 (284891)SEA FILE=REGISTRY AB=ON PLU=ON L60 OR L61 OR L62 OR L63
 L65 (93)SEA FILE=REGISTRY AB=ON PLU=ON L55 AND L64
 L66 (59)SEA FILE=HCAPLUS AB=ON PLU=ON L65
 L67 27 SEA FILE=HCAPLUS AB=ON PLU=ON L66 AND P/DT
 L68 13 SEA FILE=HCAPLUS AB=ON PLU=ON L67 AND (PRY<=2000 OR
 PY<=2000 OR AY<=2000

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L68 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:372934 HCAPLUS

DOCUMENT NUMBER: 140:391441

 TITLE: Preparation of dendrimeric DNA macromolecules having
 hydrazide attachment moieties and reagents for their
 production

 INVENTOR(S): Raddatz, Stefan; Muller-Ibeler, Jochen; Schweitzer,
 Markus; Brunner, Christoph; Windhab, Norbert; Havens,
 John R.; Oeffrey, Thomas J.; Greef, Charles H.; Wang,
 Daguang

PATENT ASSIGNEE(S): Germany

SOURCE: U.S. Pat. Appl. Publ., 78 pp.

CODEN: USXX00

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004087807	A1	20040606	US 2003-344092	20030815 <--
WO 2001051689	A1	20010719	WO 2000-US22205	20000811 <--
W: AU, BR, CA, CN, JP, KR, NZ, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 2002014558	A2	20020221	WO 2001-US41663	20010810 <--
WO 2002014558	A3	20020302		
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PRIORITY APPLN. INFO.:			WO 2000-US22205	W 20000811 <--
			WO 2001-US41663	W 20010810
			US 2000-175550P	P 20000111 <--

OTHER SOURCE(S): MARPAT 140:391441

AB This invention relates to attachment chemistries for binding macromols. to a substrate surface or to other conjugation targets. More particularly, this invention relates to attachment chemistries involving branched or linear structures having one or more hydrazide attachment moieties for binding the macromols. to a substrate surface, or for other conjugation reactions. Novel modifying reagents are provided for the introduction of protected hydrazide attachment moieties or precursor forms of such hydrazides to the macromol., either as a single hydrazide or as multiple hydrazides.

IT 681447-82-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dendrimeric DNA macromols. having hydrazide attachment moieties and reagents for their production)

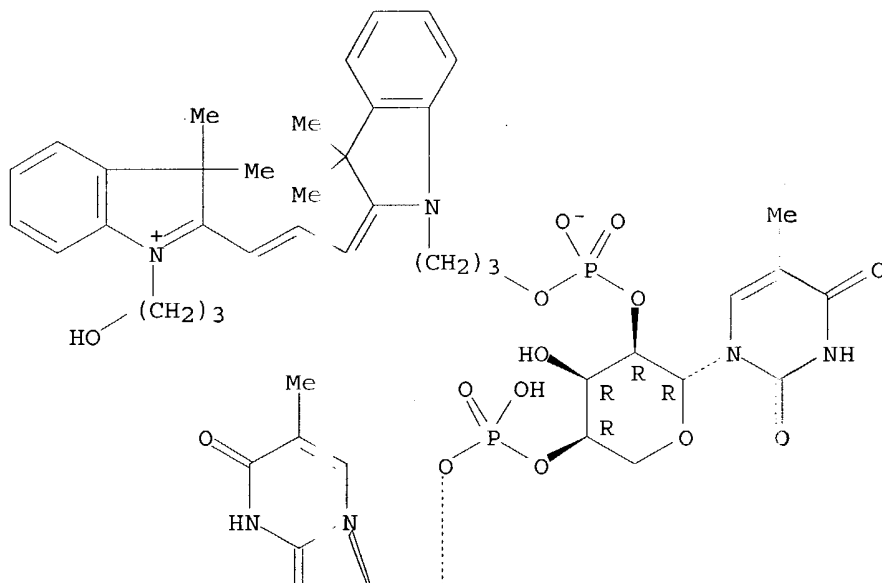
RN 681447-82-5 HCAPLUS

CN β -D-Ribopyrano-2'-uridylic acid, 4'-O-[[3-(3-hydrazino-3-oxopropoxy)-2,2-bis[(3-hydrazino-3-oxopropoxy)methyl]propoxy]hydroxyphosphinyl]-5-methyl- β -D-ribofuranouridylyl-(2'→4')- β -D-ribofuranoadenylyl-(2'→4')- β -D-ribofuranoguanilyl-(2'→4')- β -D-ribofuranocytidylyl-(2'→4')- β -D-ribofuranoadenylyl-(2'→4')-5-methyl- β -D-ribofuranouridylyl-(2'→4')-5-methyl-, 2'-[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

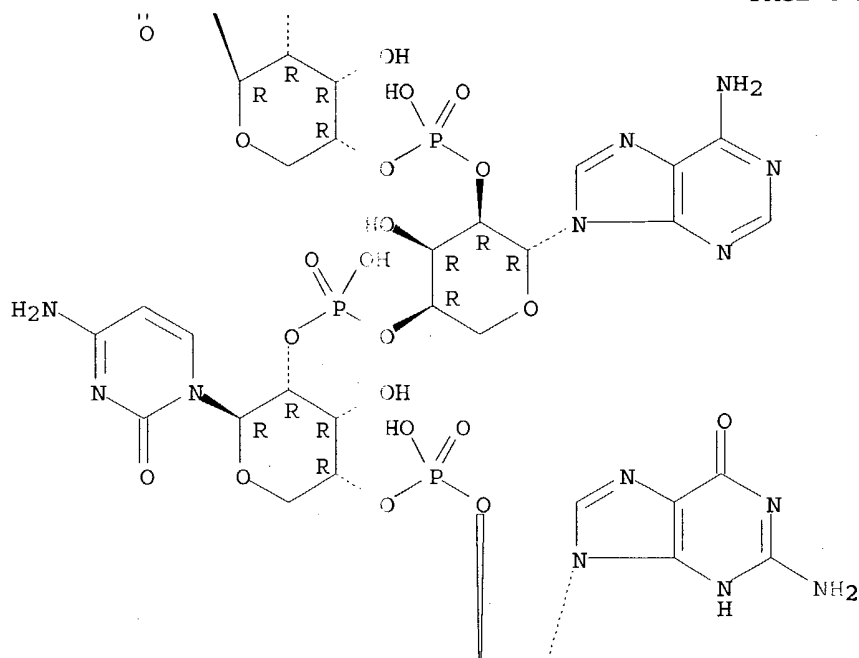
Double bond geometry unknown.

PAGE 1-A

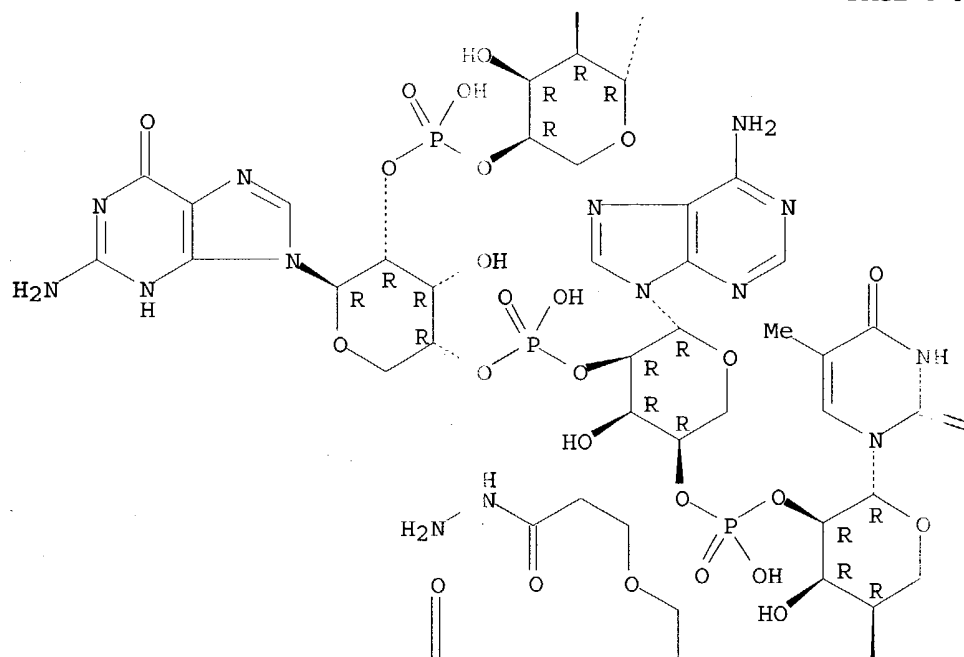


Searched by P. Ruppel

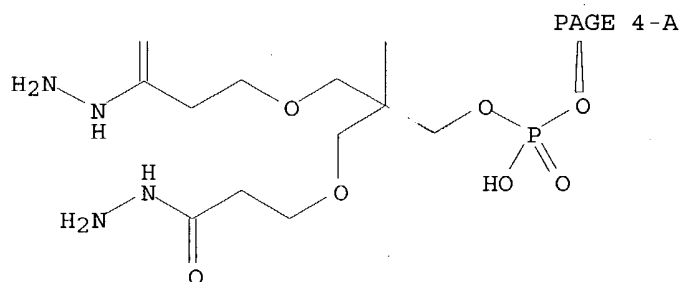
PAGE 2-A



PAGE 3-A



PAGE 3-B



L68 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:696696 HCAPLUS

DOCUMENT NUMBER: 137:227603

TITLE: Charge tags and the separation of nucleic acid molecules

INVENTOR(S): Lyamichev, Victor; Skrzpczynski, Zbigniew; Allawi, Hatim T.; Wayland, Sarah R.; Takova, Tsetska; Neri, Bruce P.

PATENT ASSIGNEE(S): Third Wave Technologies, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 120 pp., Cont.-in-part of U. S. Ser. No. 333,145.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 21

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002128465	A1	20020912	US 2001-777430	20010206 <--
US 6780982	B2	20040824		
US 6001567	A	19991214	US 1996-682853	19960712 <--
US 6706471	B1	20040316	US 1999-333145	19990614 <--
WO 2002063030	A2	20020815	WO 2002-US3423	20020206
WO 2002063030	A3	20031030		

Searched by P. Ruppel

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1385996 A2 20040204 EP 2002-724912 20020206

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

US 1996-682853 A2 19960712 <--
US 1999-333145 A2 19990614 <--
US 1996-599491 A2 19960124 <--
US 2001-777430 A 20010206
WO 2002-US3423 W 20020206

AB The present invention provides charge tags for attachment to materials including solid supports and nucleic acids, wherein the charge tags increase or decrease the net charge of the material. Thus, when an oligonucleotide modified with a charge tag is reduced in size (cleaved) or increased in size (elongated), the resulting product bears a net charge or a charge to mass ratio different from the original oligonucleotide thereby permitting separation of the original and product oligonucleotides on the basis of charge. The present invention therefore further provides methods for separating and characterizing mols. based on the charge differentials between modified and unmodified materials, e.g., by capillary electrophoresis. Thus, MCP1 and ubiquitin transcripts were simultaneously detected in an in vitro assay using the Invader technol. and probes charge tagged with one of two phosphoramidates, i.e., dG-P-Cy3 or dC-P-Cy3 in which P = -O-P(:O)(NHCH₂CH₂NMe₂)O-.

IT **446017-73-8D**, oligonucleotide conjugates **446017-74-9D**, oligonucleotide conjugates **446017-75-0D**, oligonucleotide conjugates **446017-76-1D**, oligonucleotide conjugates
RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
(charge tags and separation of nucleic acid mols.)

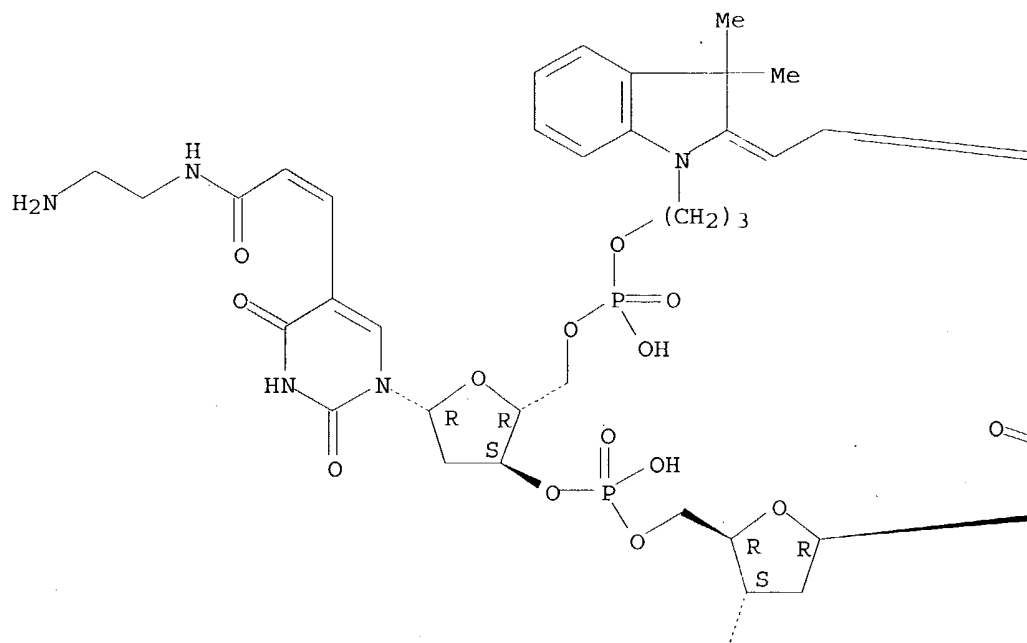
RN 446017-73-8 HCAPLUS

CN 3'-Uridylic acid, 5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]uridylyl-(3'→5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

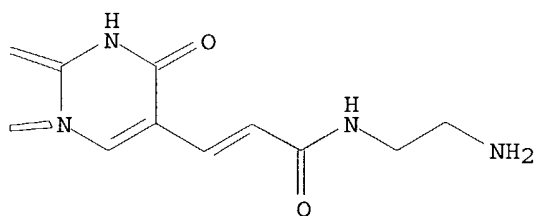
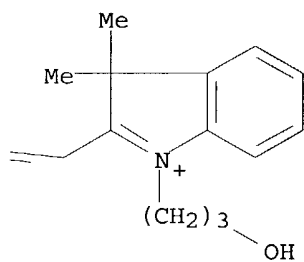
Absolute stereochemistry.

Double bond geometry unknown.

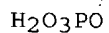
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PAGE 1-B



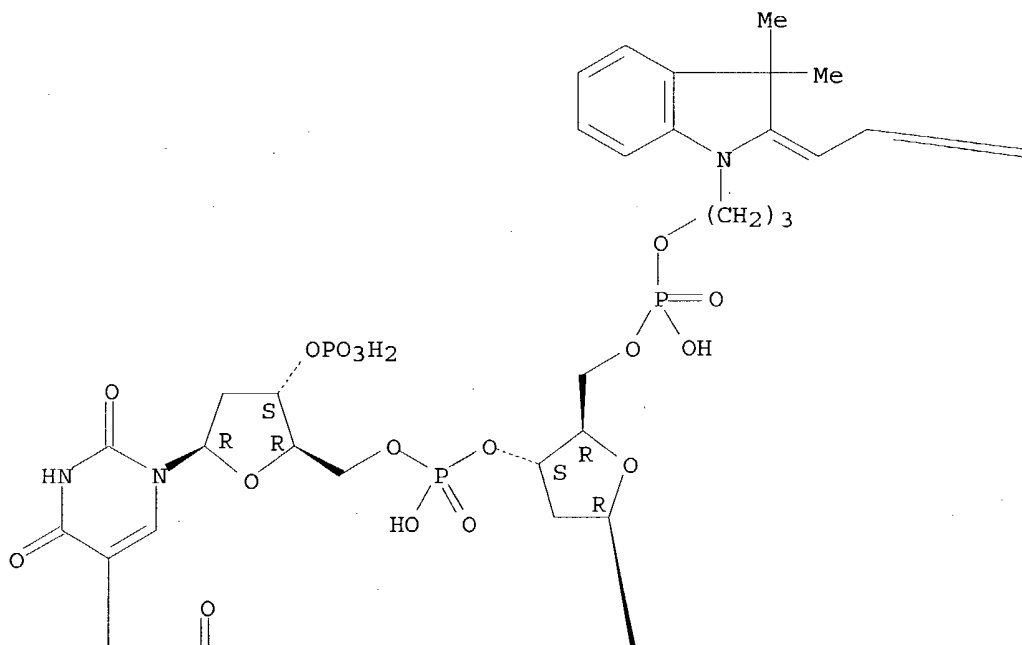
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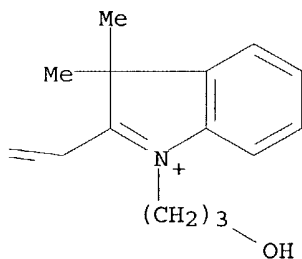
RN 446017-74-9 HCAPLUS
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 yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]
 uridylyl-(3'→5')-5-[3-[(6-aminohexyl)amino]-3-oxo-1-propenyl]-2'-
 deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

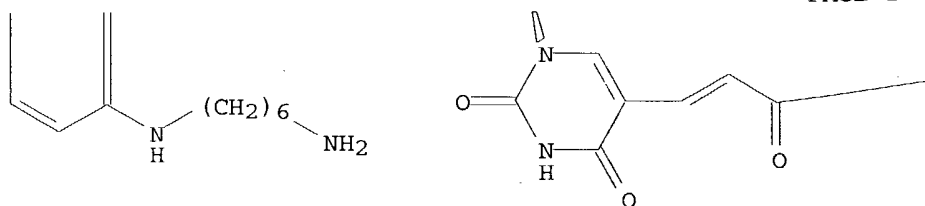
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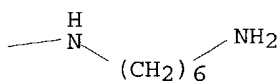
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PAGE 2-A



PAGE 2-B

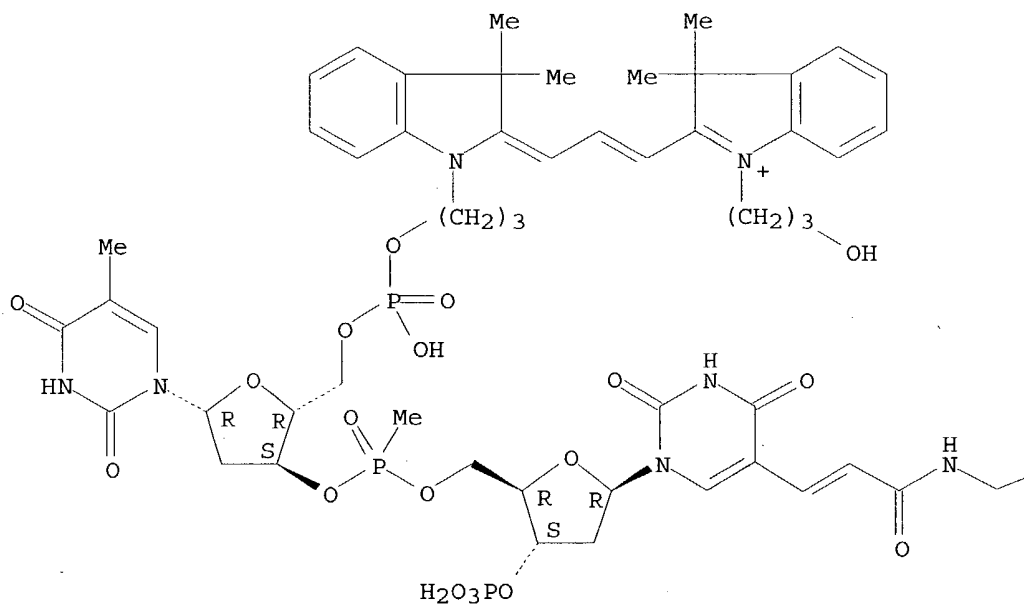


RN 446017-75-0 HCAPLUS

CN 3'-Uridylic acid, P-deoxy-5'-O-[[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]-P-methylthymidylyl-(3'→5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

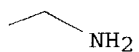
Absolute stereochemistry.
Double bond geometry unknown.

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PAGE 1-B

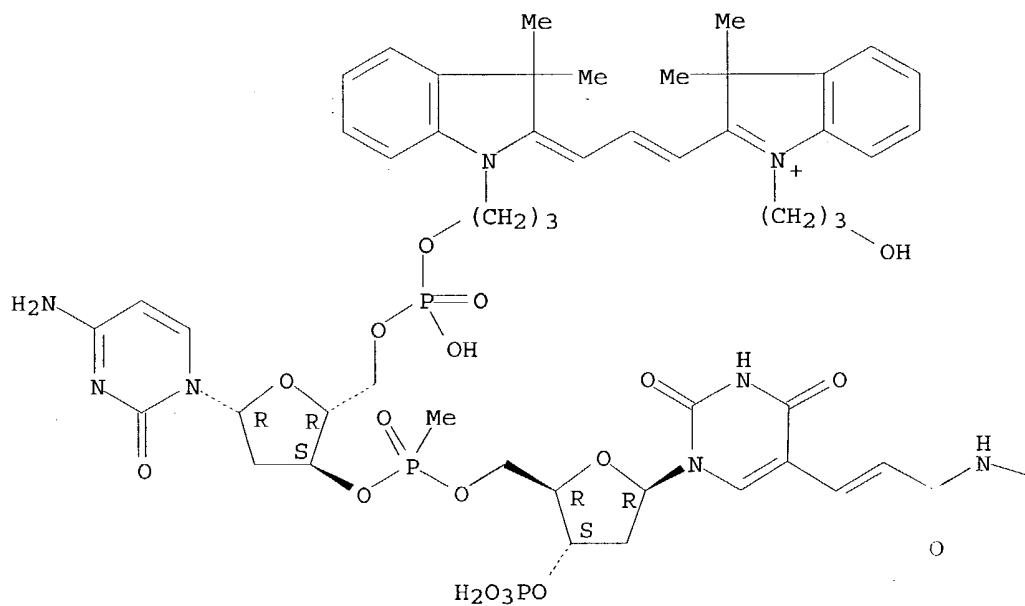


RN 446017-76-1 HCAPLUS

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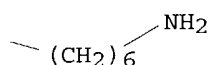
Absolute stereochemistry.
Double bond geometry unknown.

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Searched by P. Ruppel

PAGE 1-B



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:615883 HCAPLUS

DOCUMENT NUMBER: 137:164653

TITLE: Charge tags and separation of nucleic acid molecules

INVENTOR(S): Lyamichev, Victor; Szrzczyński, Zbigniew; Allawi, Hatim T.; Wayland, Sarah R.; Takova, Tsetska; Neri, Bruce P.

PATENT ASSIGNEE(S): Third Wave Technologies, Inc., USA

SOURCE: PCT Int. Appl., 197 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 21

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002063030	A2	20020815	WO 2002-US3423	20020205
WO 2002063030	A3	20031030		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2002128465	A1	20020912	US 2001-777430	20010205 <--
US 6780982	B2	20040824		
EP 1385996	A2	20040204	EP 2002-724912	20020205
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRIORITY APPLN. INFO.:			US 2001-777430	A 20010205
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Searched by P. Ruppel

US 1999-333145
WO 2002-US3423A2 19990614 <--
W 20020206

OTHER SOURCE(S): MARPAT 137:164653

AB The present invention provides charge tags for attachment to materials including solid supports and nucleic acids, wherein the charge tags increase or decrease the net charge of the material. Thus, when an oligonucleotide modified with a charge tag is reduced in size (cleaved) or increased in size (elongated), the resulting product bears a net charge or a charge to mass ratio different from the original oligonucleotide thereby permitting separation of the original and product oligonucleotides on the basis of charge. The present invention therefore provides methods for separating and characterizing mols. based on the charge differentials between modified and unmodified materials, e.g., by capillary electrophoresis. Thus, MCP1 and ubiquitin transcripts were simultaneously detected in an in vitro assay using the Invader technol. and probes charge tagged with one of two phosphoramidates, i.e., dG-P-Cy3 or dC-P-Cy3 in which P = -O-P(:O)(NHCH₂CH₂NMe₂)O-

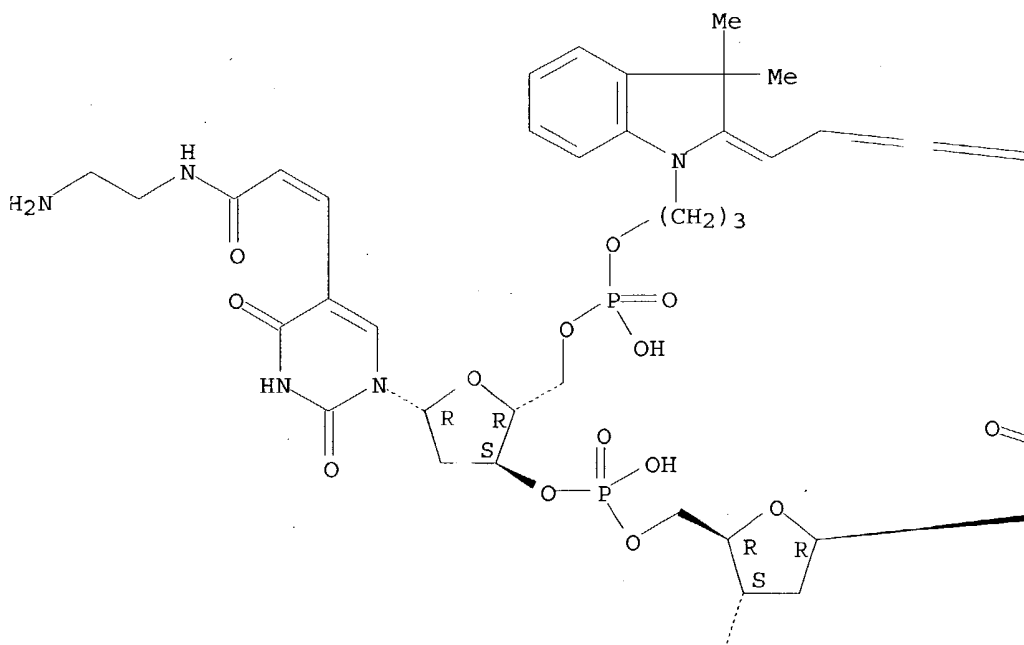
IT **446017-73-8D**, oligonucleotide conjugates **446017-74-9D**, oligonucleotide conjugates **446017-75-0D**, oligonucleotide conjugates **446017-76-1D**, oligonucleotide conjugates
 RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
 (charge tags and separation of nucleic acid mols.)

RN 446017-73-8 HCAPLUS

CN 3'-Uridylic acid, 5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]uridylyl-(3'→5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

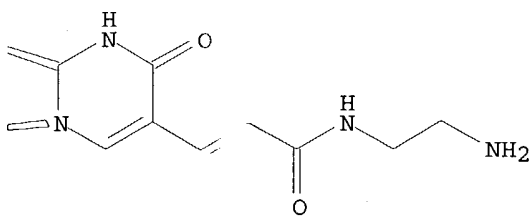
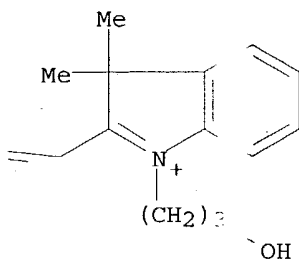
Absolute stereochemistry.
 Double bond geometry unknown.

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Searched by P. Ruppel

PAGE 1-B



PAGE 2-A

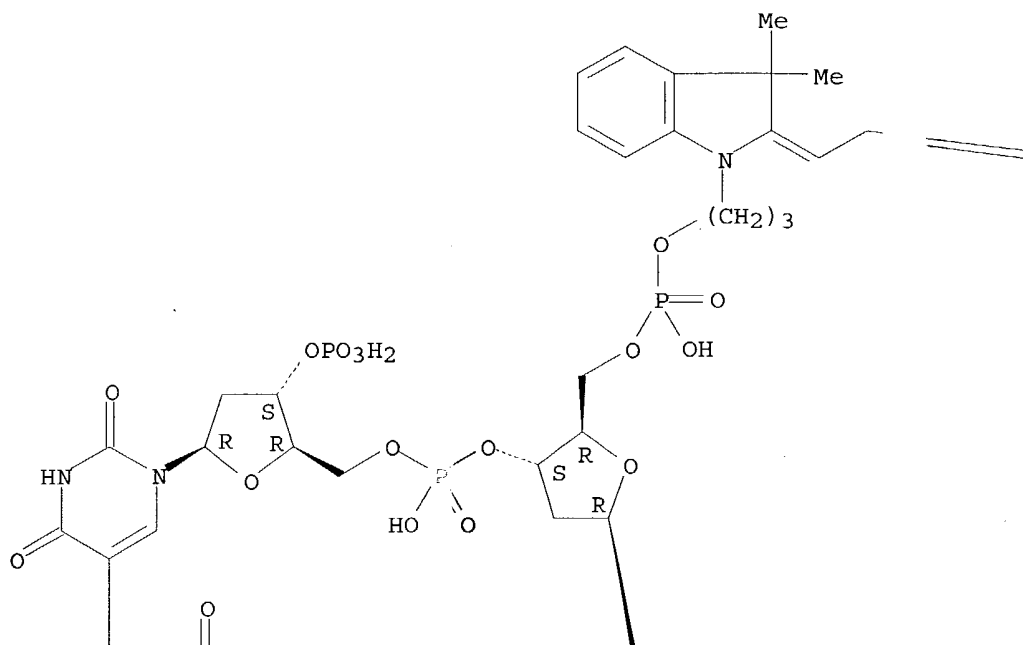
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RN 446017-74 9 HCAPLUS
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 O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-
 yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]
 uridylyl-(3'→5')-5-[3-[(6-aminoethyl) amino]-3-oxo-1-propenyl]-2'-
 deoxy- (901) (CA INDEX NAME)

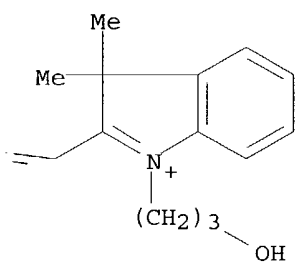
Absolute stereochemistry.
 Double bond geometry unknown.

Searched by P. Ruppel

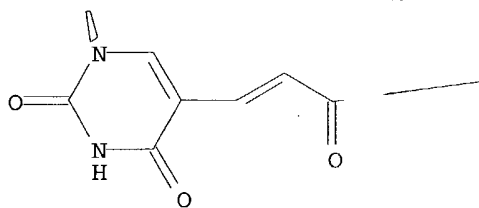
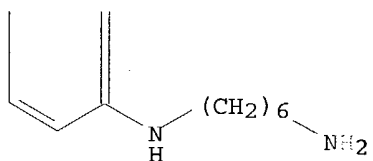
PAGE 1-A



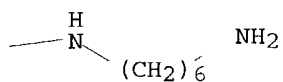
PAGE 1-B



PAGE 2-A



PAGE 2-B

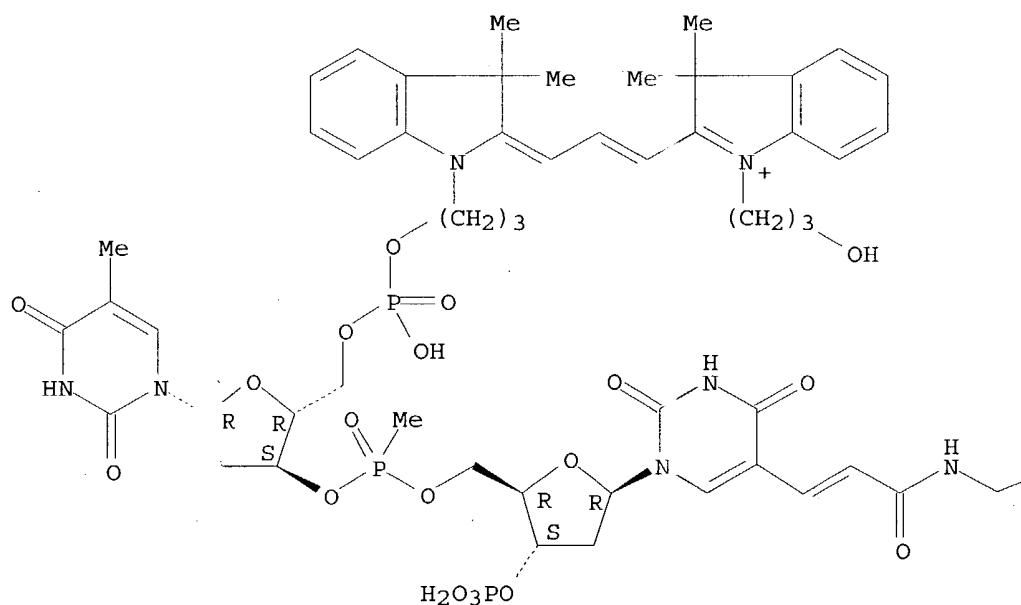


RN 446017-75-0 HCAPLUS

CN 3'-Uridylic acid, P-deoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]-P-methylthymidylyl-(3'→5')-5-[3-[(2-aminoethyl)amino]-3-oxo-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

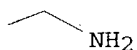
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

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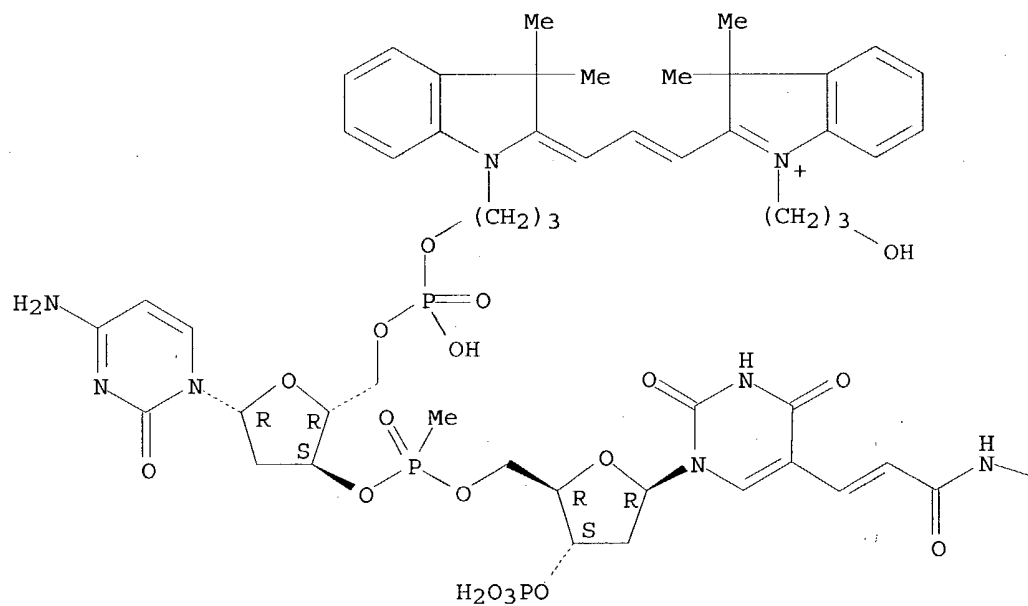


RN 446017-76-1 HCAPLUS

CN 3'-Uridylic acid, P,2'-dideoxy-5'-O-[[3-[2,3-dihydro-2-[3-[1-(3-hydroxypropyl)-3,3-dimethyl-3H-indolium-2-yl]-2-propenylidene]-3,3-dimethyl-1H-indol-1-yl]propoxy]hydroxyphosphinyl]-P-methylcytidyl-(3'→5')-5-[3-[(6-aminoethyl) amino]-3-oxo-1-propenyl]-2'-deoxy-(9CI) (CA INDEX NAME)

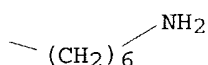
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



Searched by P. Ruppel

PAGE 1-B



L68 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:449855 HCAPLUS

DOCUMENT NUMBER: 137:30254

TITLE: Fluorescent labeling of protein C-terminal with
 puromycin analogs linked to fluorophores and
 high-throughput assay technologies for in vitro
 analysis of protein interactions

INVENTOR(S): Yanagawa, Hiroshi; Doi, Nobuhide; Miyamoto, Etsuko;
 Takashima, Hideaki; Oyama, Rieko

PATENT ASSIGNEE(S): Keio University, Japan

SOURCE: PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046395	A1	20020613	WO 2001-JP10731	20011207 <--
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1350846	A1	20031008	EP 2001-999645	20011207 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRIORITY APPLN. INFO.:			JP 2000-373105	A 20001207 <--
			WO 2001-JP10731	W 20011207

AB A method for modifying protein C-terminal with a reagent which contains an acceptor region having a group capable of binding to a protein through a transpeptidation reaction and a modifying region containing a modifier linked to the acceptor region via a nucleotide linker, is disclosed. A template containing an ORF encoding a protein, a 5'-untranslated region (UTR) containing a promoter and an enhancer located in the 5'-side of the ORF and a 3'-terminal region containing a PolyA sequence located in the 3'-side of the ORF is expressed to thereby synthesize a protein. The protein thus synthesized is then purified. The yield of the modified protein in the

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protein C-terminal modification method can be largely improved and protein interactions can be detected at an improved level in the method of detecting interactions among various mols. The authors developed and tested a simple method for fluorescence labeling and interaction anal. of proteins based on a highly efficient in vitro translation system combined with high-throughput technologies such as microarrays and fluorescence cross-correlation spectroscopy (FCCS). By use of puromycin analogs linked to various fluorophores through a deoxycytidylic acid linker, a single fluorophore can be efficiently incorporated into a protein at the carboxyl terminus during in vitro translation. The authors confirmed that the resulting fluorescently labeled proteins are useful for probing protein-protein and protein-DNA interactions by means of pulldown assay, DNA microarrays, and FCCS in model expts. These fluorescence assay systems can be easily extended to highly parallel anal. of protein interactions in studies of functional genomics. Interactions involving c-Fos, c-Jun, and DNA were studied by labeling with rhodamine green or Cy5 using puromycin-containing modifying agents.

IT 436083-84-0 436083-85-1 436083-90-8

436083-91-9 436083-92-0

RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)

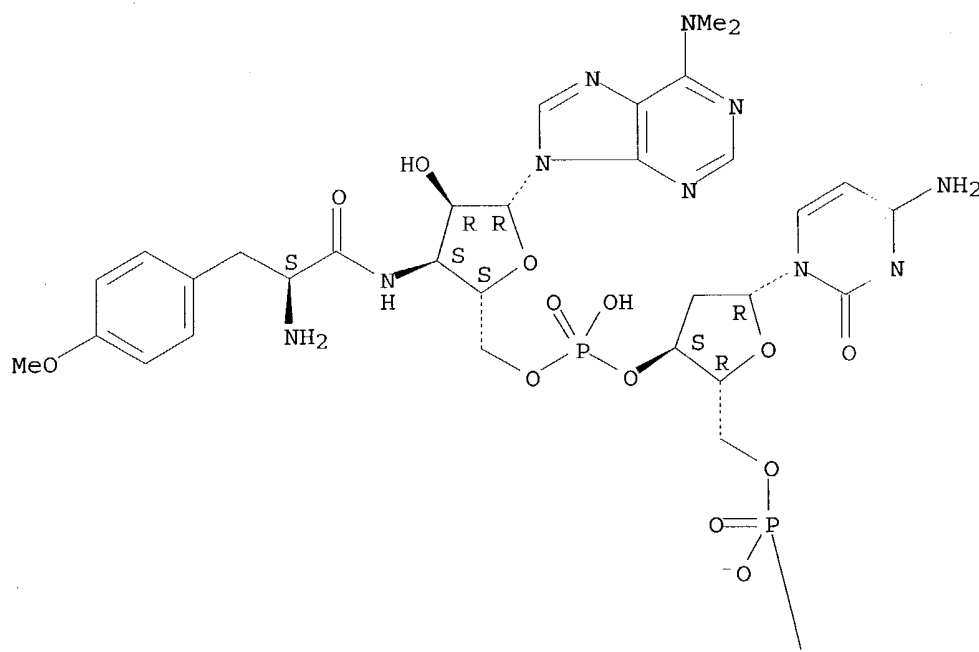
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

RN 436083-84-0 HCAPLUS

CN Adenosine, 2'-deoxy-5'-O-[[3-[2-[5-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-3H-indolio]propoxy]hydroxyphosphinyl]cytidyl-1-(3'→5')-3'-[[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyl-, inner salt (9CI) (CA INDEX NAME)

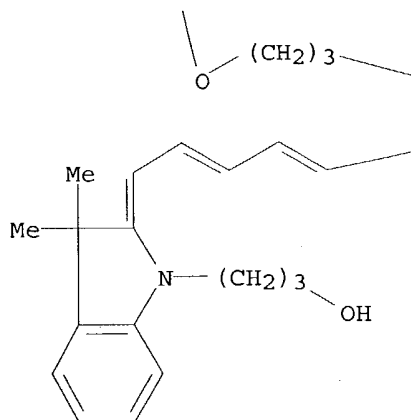
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

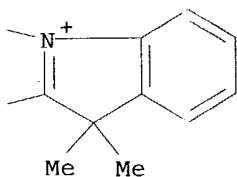


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PAGE 2-A



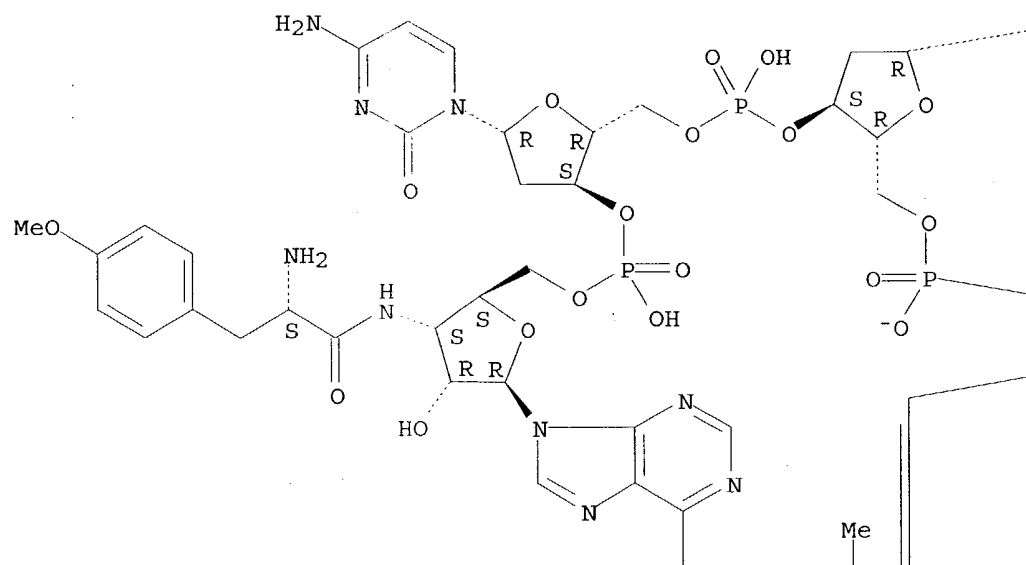
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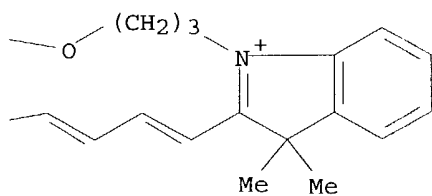
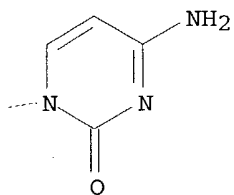
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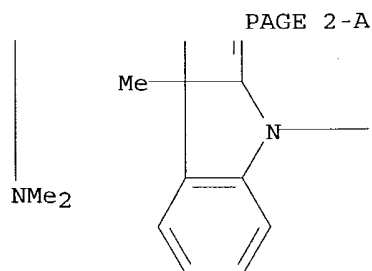
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

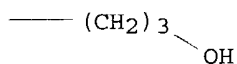


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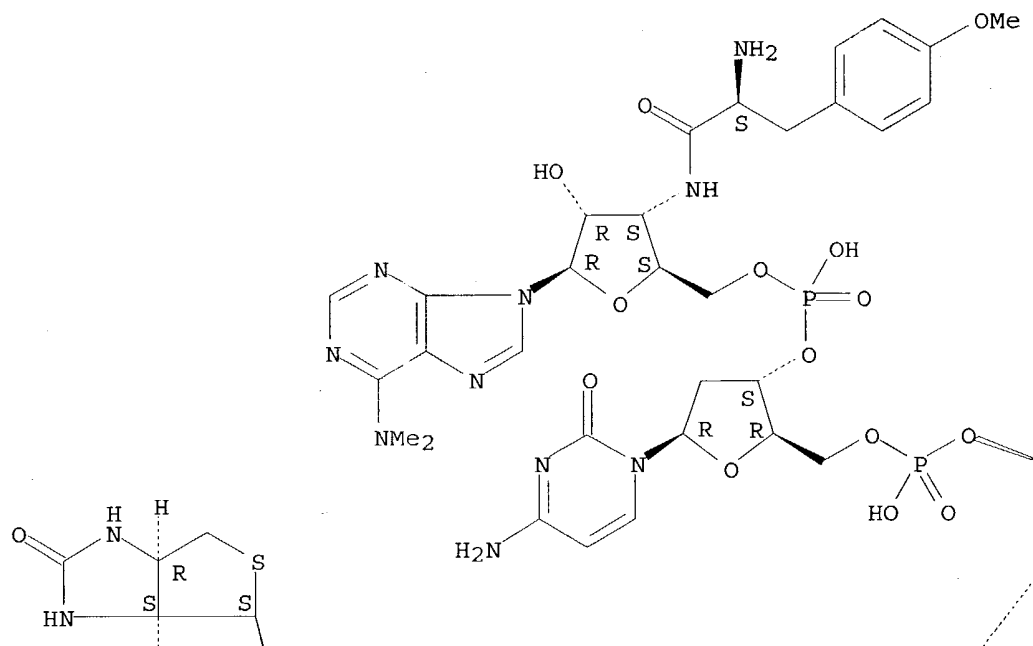
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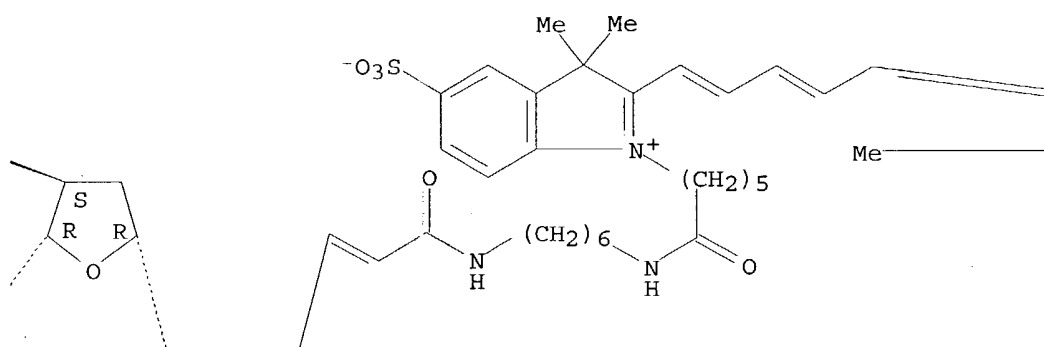
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Absolute stereochemistry.
 Double bond geometry unknown.

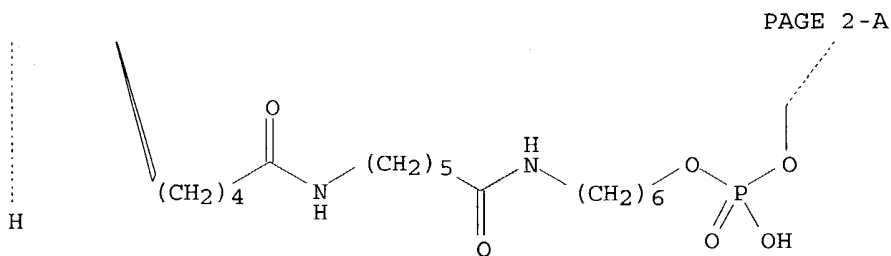
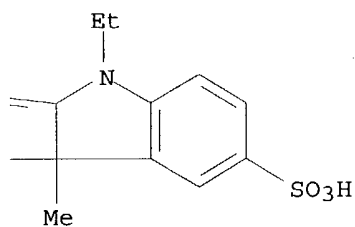
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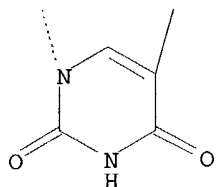
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PAGE 1-C



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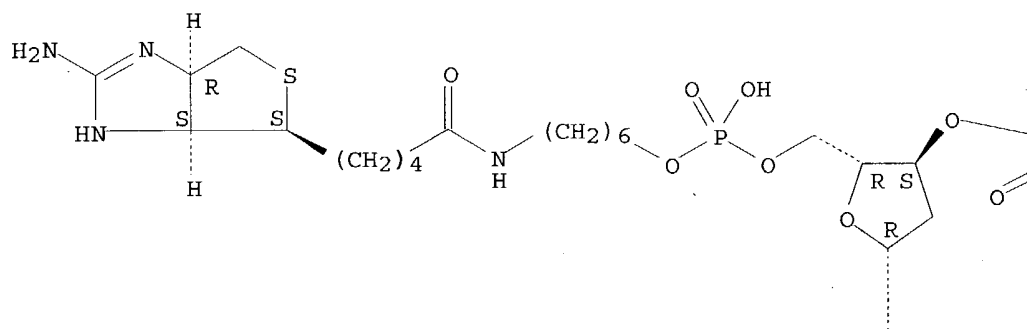
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Absolute stereochemistry.
 Double bond geometry unknown.

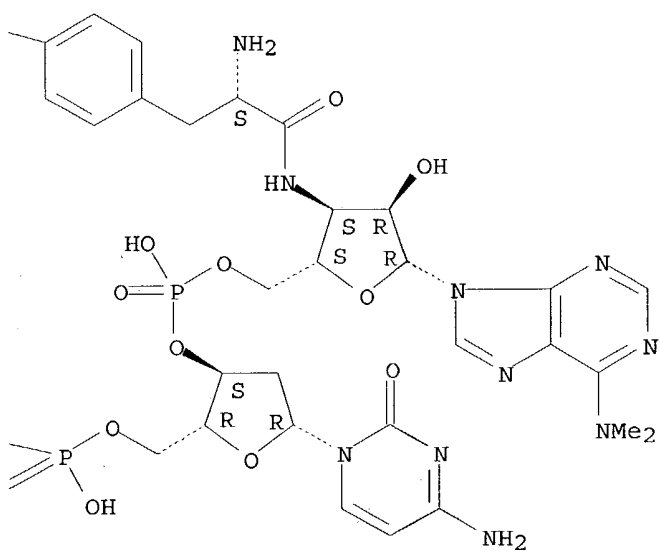
Searched by P. Ruppel

PAGE 1-A

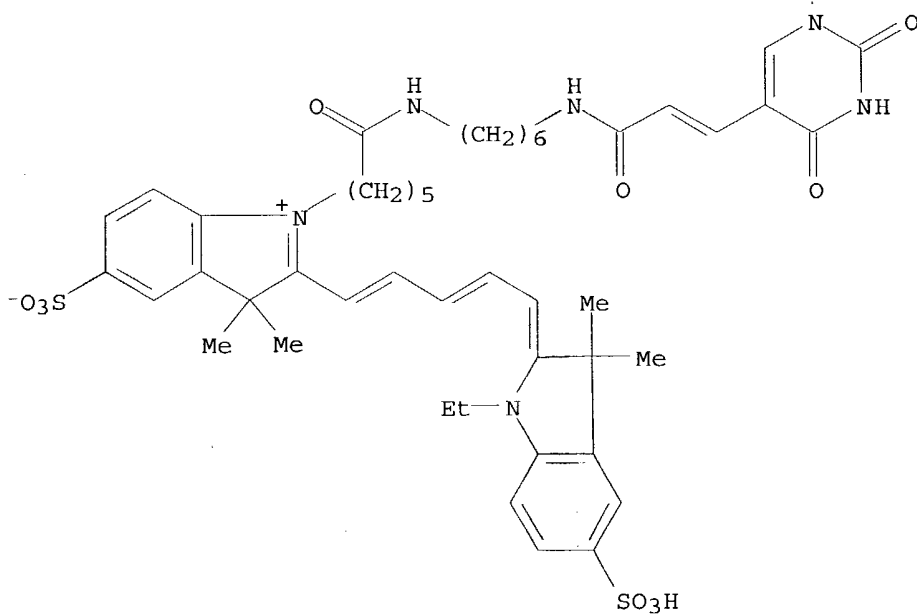
MeO



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RN 436083-92-0 HCAPLUS

CN Adenosine, 2'-deoxy-5'-O-[[3-[2-[5-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-3H-indolio]propoxy]hydroxyphosphinyl]-5-[3-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]amino]-3-oxo-1-propenyl]uridylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-3'-[[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.